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# THE CRAFTSMAN

VOLUME XIV AUGUST, 1908 NUMBER 5

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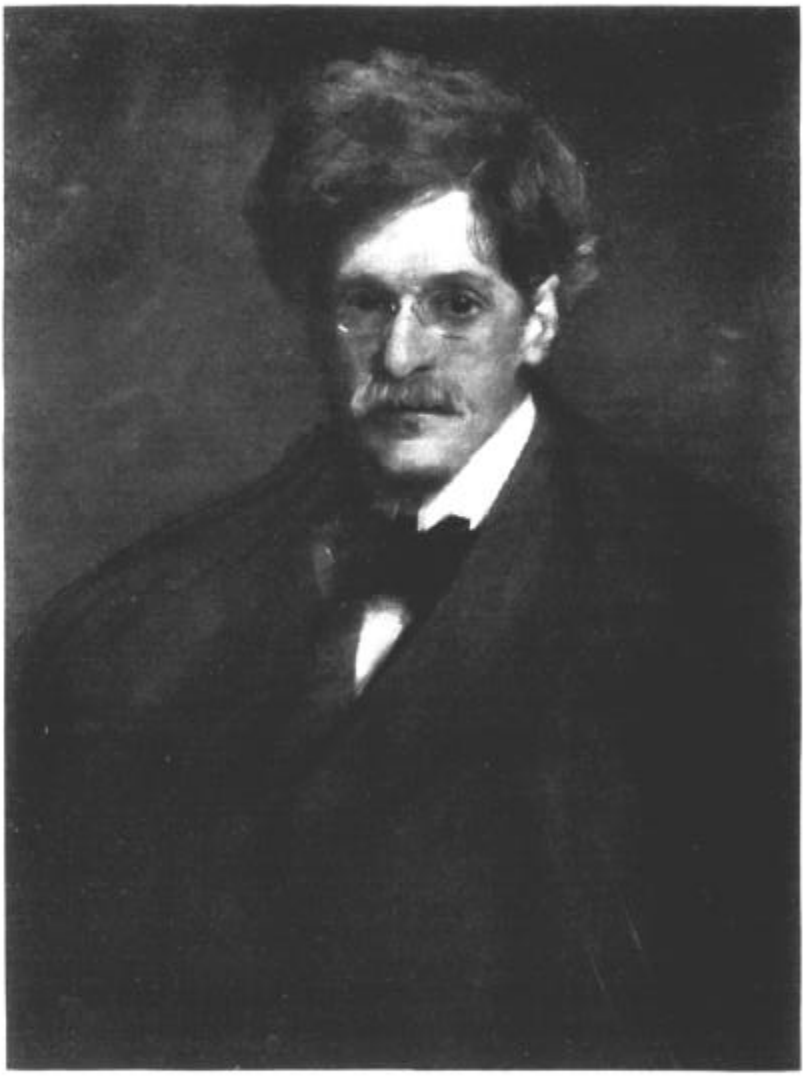


"PORTRAIT OF ALFRED STIEGLITZ":
BY WILLIAM M. CHASE.

THE CRAFTSMAN
GUSTAV STICKLEY, EDITOR AND PUBLISHER
VOLUME XIV AUGUST, 1908 NUMBER 5

# AMERICAN ART SCORES A TRIUMPH AT THE INTERNATIONAL EXHIBITION OF PAINTING AT PITTSBURGH: BY GILES EDGERTON

AN EXHIBITION of painting is not important so much for the display of any definite number of technically excellent or sentimentally interesting pictures, but for certain tendencies shown, of growth suggested, or the relation of the quality of an art to its own nation or to other nations. In other words, the value to us here in America of a big international picture show lies largely in the opportunity it gives us to classify the various modern schools of painting and to catalogue them for our own understanding and enjoyment. For to thinking people a painting is not merely a source of pleasure; it is rather a means of wider culture, an opportunity to establish standards and a chance to contrast art conditions of different lands and thus better to form a cultivated critical judgment toward our own progress.

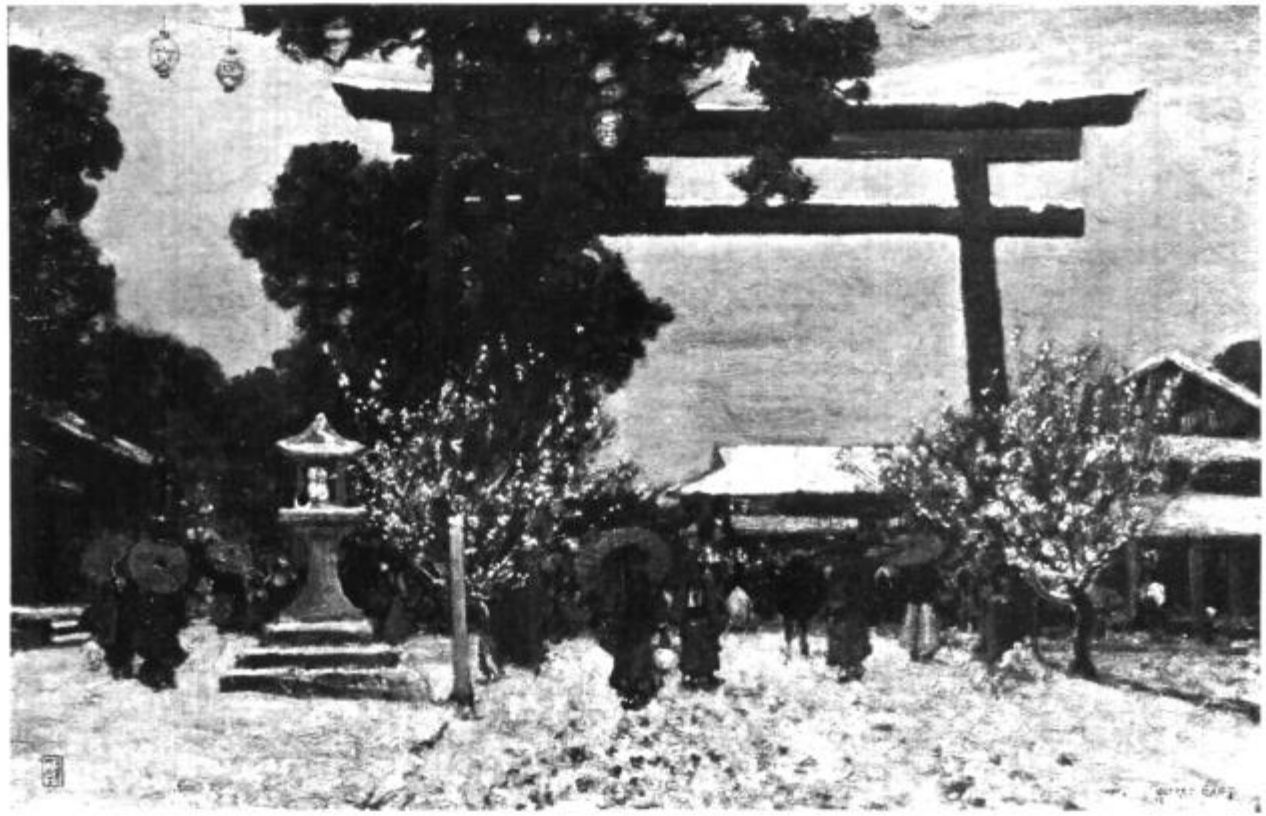
That there has been progress, a very remarkable progress within the last few years, is unquestioned. Above all things we have grown courageous about our art. We no longer, at least all of us do not, wait for foreign approval. We dare to proclaim a man an artist (an' he deserves the name) even if he has never crossed the Atlantic nor studied at Julien's nor starved in the Latin Quarter. We have even gone further than this. Our artists have commenced to study American conditions and scenery and have recklessly proclaimed them picturesque. From Broadway, New York, to the enchanted mesa in Hopi Land subjects have been discovered worthy of American canvases. And because of this assertion of independence, coupled with the development of great gift, our artists have come to be reckoned with in the Munich and Paris *ateliers*, and even in London the names of Sargent and Whistler and Chase are known. It is not unnatural that Europe should resent a little the fact that America has ceased, or is beginning to cease, her ardent occupation of copying the works of their great men. It was pleasant to let us roam about

their galleries and grant us the privilege of humbly and apologetically imitating their work, and to offer us kindly patronage. But now that we have discovered our own personality and decided—some of us—to express our national temperament in the works of our imagination, we are no longer candidates for a few kind words and a pat on the head. We have to be considered seriously and criticism must be awarded us according to our merits. For a while, at least, this stand will not meet with approval,—it will seem self-assertive and self-conscious—but in the long run we will take our place in the foreign galleries, and the indications are at present that it will be a very high place.

The value of an international exhibit is thus to us no longer that we might estimate how well we succeed with Munich technique, how conscientiously we adhere to French and Dutch subjects, or how steadily we avoid the distinctly creative expression of an American quality; we have gone beyond all this at last, and today we speak of a national art without a mortified sense of provincialism. And also we are beginning to think of an America in the future possessing an architecture that has grown out of the life of the people, a literature that is unconsciously history, not only of our times but our temperament; an art which both in technique and subject has developed out of our own conditions. For a man who is at once creative yet vividly alive to all actually existing conditions (which is typical of the American artist) paints not only *what* he sees but *how* he sees it, and technique with such a man is nothing more than his effort to make you clearly understand exactly how he sees life.

Little by little we find that American painting, the best of it, is growing typical of American conditions. The qualities which are temperamental to us as a race are becoming significant in our art,—an art which is not only descriptive of our ways of living but what we think of them. Possibly the two most dominant qualities in our painting, for as yet our other arts have not advanced sufficiently to be radically expressive, are a sense of humor and a very sincere love of nature. This sense of humor is particularly noticeable in all our sculpture and in the outdoor painting of city scenes. It is not caricature or anything related to that very obvious thing known as a joke, but it is the true sense of humor which is at once tender, kind, amusing and even pathetic. It is the quality which seems to bind all other good qualities together with a smile. Our very genuine love of nature and understanding of all her rare moods is speedily ranking our landscape men as among the greatest the world has seen; today possibly

"INDUSTRIAL CENTER—SNOW-COVERED ROOFS": BY ALBERT BAERTSOEN.



"HARU-NO-YUKI—SNOW IN SPRING": BY ALFRED EAST.

"IN A VARIETY THEATER"
BY ARTHUR KAMPF.

SOME FAMOUS FOREIGN MODERN ARTISTS WHO EXHIBITED AT PITTSBURGH

ALBERT BAERTSOEN: BELGIUM.

ALFRED EAST: ENGLAND.

BIPPE CIRADY: ITALY.

ARTHUR KAMPF: GERMANY.

CHARLES COTTET: FRANCE.

the greatest, if one can judge from the national and international exhibits of the last year of two.

THUS we are sufficiently advanced to gain the full benefit of such a presentation of the world's modern art as the Twelfth Annual Exhibition of Oil Paintings at the Carnegie Institute, Pittsburgh, where modern paintings of practically all European nations were hung in contrast with the paintings of some of our best American artists. Unfortunately, the *best* work of our best artists was not inevitably hung; but this probably held equally true of the foreign exhibitors, so that it seems fair to make a critical comparison of the work shown, contrasting modern American art frankly with canvases from Germany, France, Italy, Scandinavia, Spain and even Russia. Many who have visited this most important international exhibit have already had a wide opportunity of comparing American and foreign art in the galleries of different nations. And this is unquestionably a most valuable method of forming opinions and of estimating the quality of different national art. Yet, on the other hand, the bringing together in one building of pictures from all over the world, as was done at Pittsburgh, is by far the most practicable and reasonable method of cultivating a finer critical faculty and of forming well defined valuable judgment on the question of the relative value of modern art in all that vague, boundless land known as the art world.

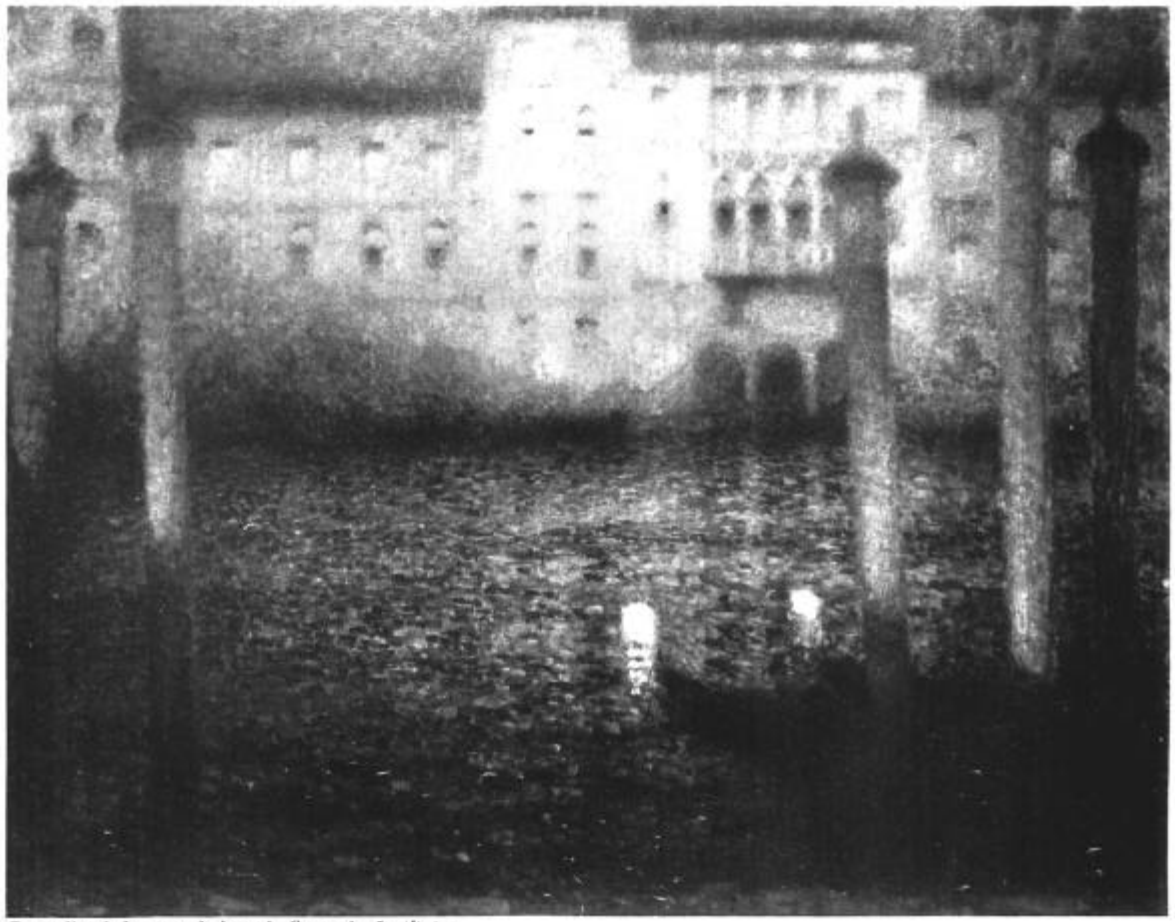
Of the pictures shown at the Carnegie Institute at least one-third of the three hundred and forty-two were foreign, the work of important men who rank among the great at the continental galleries. Monet, Le Sidaner, John Lavery, Zampf, Cottet, László, Villegas, Mancini are men well known in Paris and in Munich; not as Millet is, to be sure, or Cazin, or Puvis de Chauvannes; but, on the other hand, we are not exhibiting Whistler or Sargent—the balance is there, however, for we were showing John Twachtman, Winslow Homer, Irving Wiles, William Chase, Robert Henri, Cecelia Beaux, Willard Metcalf, Elmer Schofield, J. Francis Murphy, and Horatio Walker, whom America may claim, if not the United States.

After a most careful comparative study of the paintings from Europe, north and south, from America, east and west, the impression is inescapable that America, considered in all the various expressions in art, in this exhibit at least, is the winner. It seems true not only of the landscapes but of portraits, of sea pictures and of interiors. Perhaps one should discriminate here and say of the home

interiors, for the French *cabaret* and studio scenes are unquestionably more brilliant, more splashingly effective than anything along this line done by American artists. I am not sure that so sweeping a tribute as the foregoing could ever have been honestly written before of an international exhibit. We have won out along single lines and various lines, from time to time, in contrast with other work, but I cannot recall that ever before would it have been possible to say that in a single exhibit at least some of our paintings suggested the greatest imagination, the subtlest poetry, the most direct methods, the freest technique, with almost invariably home-grown subjects. So much of this praise belongs to our younger men that a word to that effect is due them. Men like Lawson, Glackens, Sloan, Henri, Lathrop, Metcalf, have done such yeoman service in discovering America as a beautiful and profitable "subject" that their radicalism has done much necessary leavening of academic art in this country.

But there are other men who have made a significant showing at the exhibit, men of the generation who connect the elder Inness and Homer Martin with our younger men,—J. Francis Murphy, J. Alden Weir, Leonard Ochtmann, William T. Smedley, Bruce Crane. These men average strong on the line with the best that France has sent us, and have a quality of individuality of presentation which England seems wholly to have missed in this generation.

APART from the fact that as a whole the American work seems to stand out prëeminent in merit, the foreign work, separately and individually, suggests failure along wholly differing lines. The French work as a whole lacks the qualities which just now American art seems particularly to achieve,—those of poetry and intrinsic merit; in other words, sympathetic feeling and a real reason for painting a picture. The French painting, more often than not, has *chic*, sometimes even distinction, but the search for the great universal beauty, those hidden marvels of tone and grace which life holds *perdu* for all the artists true of heart, is not apparent. There is often the presentation of sprightly fancy, more often perhaps than in our own art, and there is a superficial gaiety, but one feels that there is but the symbol of gaiety, not real gladness or tenderness or even a big sadness, and rarely force, truth or vitality. These tremendous real issues of life do not seem to find expression in any of the more popular of well-known French canvases. Instead, we find strange decadent fancies, emotions of the purely *boulevardier* type. Strong feeling of many kinds, jealousy, rage, cruelty, sus-



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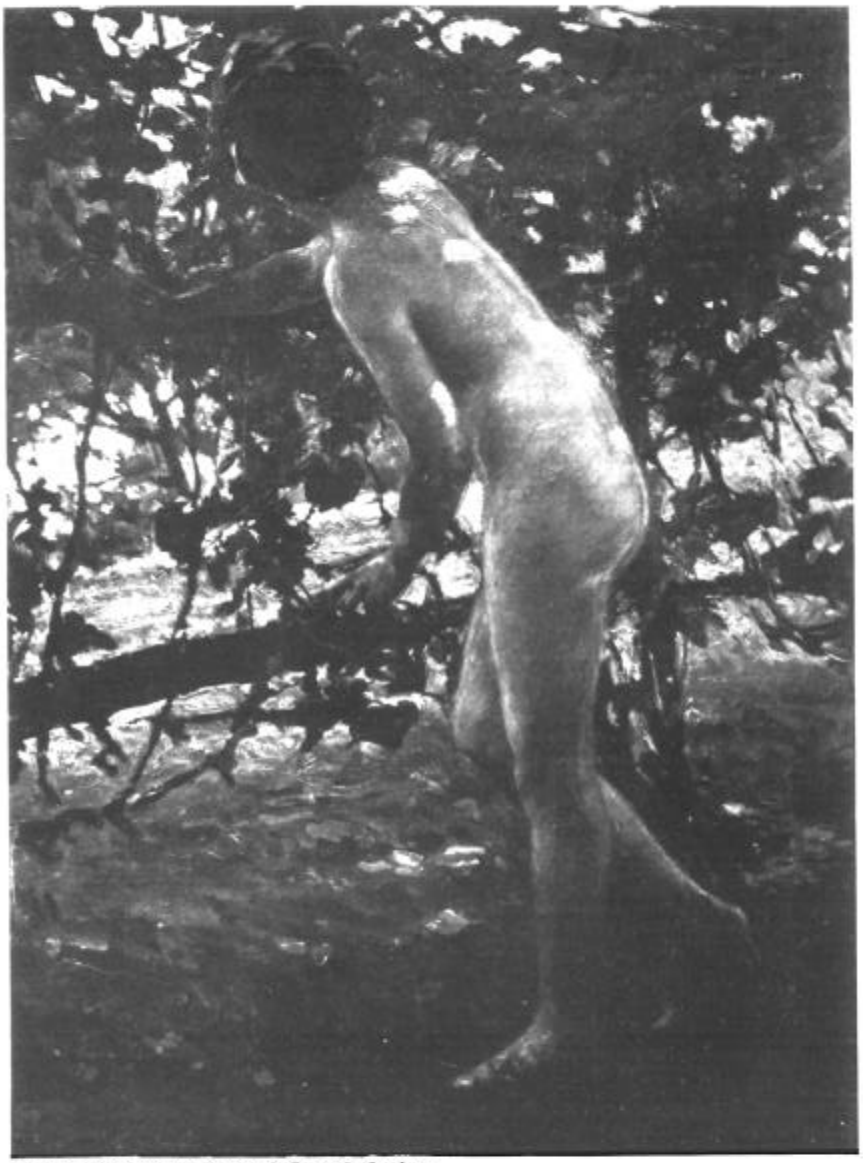
"THE GRAND CANAL—MOONLIGHT"
BY HENRI EUGENE LE SIDANER.

"PORTRAIT OF YOUNG GIRL WITH AMBER NECKLACE": BY CHARLES COTTET.



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"BIRD SONG": BY LILLIAN MATHILDE GENTH.

*Reproduced by courtesy of National Gallery, Washington.*

"HIGH CLIFFS—COAST OF MAINE": BY WINSLOW HOMER.

picion, cunning,—these qualities lend color, individuality, tragedy to modern continental art, especially to modern Parisian art. And taken *en masse*, it is almost inevitably the impression received, however clever technically this art may be, that it is spiritless, soulless. Why does it exist? is the first question. If it is a revelation of national conditions it is tragic; if not, it is meaningless. Throughout France the search in art, architecture, literature, seems to be essentially for novelty—the "new art," with its cornerstone of eccentricity. This criticism does not hold good up in northern Europe. Scandinavia is thinking and dreaming; she is desperately introspective, perhaps even morbid at times, but as a poet would be, fearlessly, frankly, with eyes that see clear from hilltops. And great new art cannot be born, as Paris has thought, in a studio; it must spring up somewhere out of doors and remote, in the Barbizon fields or in Connecticut meadows, or, at worst, from the vision of these things seen by great souls in sordid quarters where memory and homesickness cover canvases.

The English pictures at the exhibit in the main carried too much paint, as though done slowly, without inspiration, seeking effects from endless effort and tubes of color. The few examples of modern Spanish and Italian art seemed definitely imitative of Paris; yet as the South is more picturesque this sort of painting from the southern artists seemed more sincere. It was nearer life, with less whimsical novelty and inventive degeneracy. The technique seemed forced, as that sort of imitative work must, but the purpose rational. Belgium does not seem as yet to have definitely found herself in art; in music, yes; in literature, somewhat. But in the main she has been too divided a nationality with her Dutch instincts and her French ways to accomplish aught beyond a strange hybrid of thrift and emotion, which up to the present has only achieved good government and interesting music.

But to return to America. It has been difficult, at least for the writer, to understand why the first prize at an exhibit of such proportion should have gone to a little interior called "The Necklace," by Thomas W. Dewing. A charming interior, done with Dewing's inimitable subtlety of expression and extraordinarily interesting technique, but where there were in the exhibit expressions of at least some of the greatest achievement in American art, it is confusing to the writer, as it must be to these same artists, to understand the meaning of this sort of discrimination. The giving of the second prize to Le Sidaner's "Grand Canal—Moonlight," seemed a more reason-

able expression of appreciation and understanding, for although less remarkable than some pictures which were not prize winners, it nevertheless has rare charm of poetry and color. This picture has since been purchased by the Carnegie Institute for its permanent exhibit. "Bird Song," by Lillian M. Genth, was also among the purchases made from this exhibit.

THE most interesting showing of one man's work at this annual exhibit was a collection of twenty-two paintings of Winslow Homer, eight of which were loaned from important American museums. In speaking of this collection, one of the art critics wrote: "In his originality Winslow Homer is as complete as if he were the sole occupant of this planet. The splendor and amplitude of nature —not the skill of the painter—are the first and the last things to affect the mind as one looks at his pictures. 'I count him a great man,' says Emerson, 'who inhabits a higher sphere of thought, into which other men rise with labor and difficulty; he has but to open his eyes to see things in a true light and in large relations.' And again—as if he were actually thinking of Winslow Homer—'he is great who is what he is from nature, and who never reminds us of others.' Great men are thus somewhat separate and isolated. Winslow Homer's feeling for wild, primitive nature and the life of the solitary dwellers in the wilderness is equally pronounced, and his originality is manifested in quite as distinctive ways in the delineation of the mountains and the woods of our vast inland domains. Everywhere our American hearts respond joyfully to the broad, hearty, manly and straightforward American style of his work, and the intimate and purely national touch with which he clothes all his conceptions.

Among the other pictures which have been labeled notable by general consent are Claude Monet's "Stranded Ship," John Twachtman's "Spring Morning," Willard Metcalf's "Trembling Leaves," J. Francis Murphy's "Upland Pastures—Morning," Cecelia Beaux's "Portrait of Mrs. Divine," William Chase's "Portrait of Alfred Stieglitz," Alfred East's "Snow in Springtime—Haru-no-Yuki," A. Baertsoen's "An Industrial Center—Snow Covered Roofs," "A Portrait" by Anthony Mancini, "Evening Light" by Birge Harrison and Charlotte Coman's "Babbling Brook."

A memory of the exhibit as a whole emphasizes the impression that American landscape work has struck a note of beauty, individuality and sincerity that places it unquestionably in the position of the best work of its kind that is being done in modern art.

# THE TEMPERED WIND: A STORY: BY EMERY POTTLE

HE night was very still. There was no wind, though now and then a warm, tree-scented breath touched Hattie Sears' cheek. In the marsh back of the pines the night things beat and throbbed. The sunset lingered in thin opalescence on the far horizon; the night colors were just beginning to flow. A mature peace lay over the country—a calm of ripened days, full harvests, and well-won hire—for it was late September.

The girl felt the night with every sense.

"My! it's all so kind o' peaceful an' quiet, it—it—hurts me."

In her blue gingham lap lay a big bunch of China asters. She buried her face in the clean, wholesome flowers. "We're all happy together, ain't we? You asters, an' John, an' mother'n' me. Oh, it's so good! I don't know how the Lord ever come to let me have it so. I ain't deserved it, but I'm a-goin' to work for 'em an'—an'—love 'em till my hands get wore to the bone 'f need be. I won't never do anything to make 'em ashamed o' Jim Barnhardt's daughter."

The cheering little note of some home-belated bird made her smile confidently up into the shadows where he was hidden. "Thank you," she said, quite seriously, and then she, too, began to sing.

A meek, sweet-hearted, tiny woman, like the brown bird above her, was Hattie Sears, full of unquestioning, fierce loyalty to her husband and his mother. She never could understand why, six months ago, John Sears had married her, old Barnhardt's girl, and she had given up trying to understand, but her stifled little heart budded and flowered, and flowered again, in a wealth of affection for the big, silent man who wanted her.

Her shrill, throaty soprano was very sweet to John Sears as he set down his brimming pails of milk to put up the bars. She was singing an old-fashioned tune his mother had sung to him as a boy. He hoped Hattie would sing it soon to his boy.

"Swee-e-e-t Belle Maho-o-ne,
Swee-e-t Belle Mah-o-ne,
Wait for me at Heaven's gate,
Swee-e-t Belle Mahone."

"That you, Hattie?" he called.

She left the kitchen porch and hurried down to meet him.

"Cows are givin' a good lot of milk," she commented, slipping her hand next his on the handle of a pail.

"Pretty good for this time o' year." His voice was deep and weather-worn. That was all they said for a moment. Conversation is simple where men and women live close to nature; even the language of affection comes lame and halt.

"I guess I won't go to meetin' tonight, John," she ventured, timidly. "I'm kind o' tired an' tomorrow's goin' to be such a day of it—the Fair's always so hard."

He looked at her soberly, a shade of disapproval on his face.

"All right, Hattie, if you think best, but we mustn't forget that the Lord is jealous of His house of prayer—always."

She hesitated; then she said again slowly, "I guess I—won't go tonight."

After she heard the wheels of John's buggy crunching out through the yard, as he drove off to the village prayer meeting, she came back into the kitchen and sat down by Mother Sears.

"The quilt's all ready," announced Mrs. Sears, rocking sharply to and fro. "I done it up in two layers of newspapers. You won't let nothin' happen to it, will you, Hattie?"—this with an anxious voice. "My land, the work I've put on that quilt! It's the last one I'll ever piece, Hattie, an' I want you an' John should have it for the best room. I wisht I could go to the Fair myself, an' see't they didn't let nothin' hurt it.

"They's up'ards of a thousand pieces in it, Hattie," she continued, with solemn joy—"up'ards of a thousand pieces, herrin'-bone pattern. They's a piece of my weddin' dress, gray poplin an' expensive, an' some of John's first linen pants, an' a piece of the dress sister Mary was laid out in. Mercy! 'Twas forty years ago poor Mary died, an' I cut a little mite off'n the hem of your weddin' dress, Hattie, where 'twouldn't show, an' put that in." She sat back in her chair with a sigh, the gentle pain of old memories on her.

Hattie's heart thrilled with tenderness as she listened. She wondered if such a precious heritage of remembrance would be hers when she grew old.

"An' you put a piece of my dress in, too," she said, reverently. "I'm so pleased." She felt like flinging her arms around Mother Sears' neck.

"Dear, dear, it's fifteen years this fall since I went to the Fair. Seems like yesterday. I went with John's father. He died the next spring in laylock time. I ain't never been since, nor took a quilt. John's just like him. Strict an' honest an' a good provider, an' a

pillar in the church. Nothin' mean or dishonest or deceivin' did I ever see in either of 'em."

Mrs. Sears broke off suddenly and turned to Hattie.

"You don't think my quilt won't win the first prize, do you, Hattie? I never got anything but firsts with my quilts. The las' time I went I got first on that wild goose pattern—green an' white—that's in your an' John's room. Do you think it'll get first, Hattie?" Her eyes filled with childish tears.

"Why, Mother Sears, it's just lovely. I know it's goin' to win. I sh'd feel perfectly awful if it didn't. I'd just like to see the judges that wouldn't give't first;" and Hattie Sears' plain little face flushed angry red.

The two women sat silently rocking in the old kitchen. Shadows crept along the floor and laid long, black fingers on the wall. The older woman dozed and dreamed of other Fair-times, waking with nervous starts. Hattie stared into the tomorrow, palpitant with a hundred joys, and listened for John's return.

"There comes John!" she cried after a long time. They bustled expectantly about.

Hattie went out on the porch and leaned into the night, her arm around a weather-beaten post.

"I hope John won't feel it because I didn't go to meetin' with him," she said to herself, "but I just couldn't. I'm so excited over thinkin' of tomorrow that I couldn't stand Elder Simpson. I s'pose I'm awful wicked. O, what if they shouldn't give mother the first prize tomorrow. She'd never get over it. Well, they just *must*."

A lantern flitted through the dark.

"John," she called, "you home?"

"All right, Hattie," he answered, cheerily.

"O John, don't you think mother'll get first prize on her quilt?" she queried, anxiously, as he came near.

"If it's all right she should, Hattie." And together they went into the house.

BY TEN o'clock John Sears and Hattie had driven the four dusty miles to Palmer, had unhitched the horse from the buggy and tied him to a tree in a little maple grove just outside the Fair grounds. It was a proud moment for Hattie as she hung on John's arm while he pushed the money for the tickets through the tiny window in the high yellow entrance gate. They crowded in with the rest, and looked hesitatingly around the big glaring enclosure.

"I wish mother could 'a' come," she said, excitedly. Hattie had never been to the Fair before as a bride. She wore her wedding dress today in honor of her exalted state. It was dove-gray cashmere, trimmed with velvet, and had a bit of stiff white lace at the throat. Her hat displayed a long white plume and a bunch of vivid pink roses. She was very much afraid it would rain. It always did rain Fair-time, she told John. A neighbor came up and jovially accosted them. "Howdy, John! Glad to see ye brought the little woman. Howdy, Mis' Sears! Goin' to take some prizes? My woman's over to the Fair House. Better go'n' see her. She's got a cartload o' can fruit and more'n a bushel o' fancy work. Le's go'n look over the cattle, John."

"I'll find you there, bime by, Hattie," said Sears, as he went off to look at the long line of stamping, impatient cattle.

Hattie continued her way to the Fair House, carrying the quilt carefully in her arms. She pushed along through the slowly circulating crowd of men and women in the Fair House, who kept a watchful eye on their own entries and a critical gaze on those of their neighbors. She made her way upstairs to the rude gallery given over entirely to the display of "Art and Fancy Work." She did not stop to speak to her friends, but hunted out the Committee—three important, perspiring women, with mouths full of pins, and bonnets cocked over their eyes.

"I want to know," absently bubbled the head of the Committee as she took the precious package from Hattie. "An' Gran'ma Sears has pieced another quilt, has she? You don't say! Well, my dear, this is the seventeenth quilt I've hung up this morning, an' my back is almost broke, but I'll give the quilt a real good place. Right here on this line. Now, where's your entry ticket? Land, ain't this hot weather for September? How is old Mis' Sears now?"

The gay little quilt was hung safely and conspicuously. Hattie breathed a sigh of relief when it left her hands. It looked very bright and imposing, and she felt a new, fierce thrill of family pride as group after group came curiously by and stopped with admiring exclamations to read the ticket: "Quilt—herring-bone pattern—pieced by Amanda Sears, in her eightieth year."

Martha Sabin came up to her as she stood wondering vaguely if she ought not to stand guard over Mother Sears' property for the rest of the day. "Why, Hat," she said, with loud cheeriness, "I ain't seen you since you was married. My, how nice you look! Getting married agrees with some, I guess." Hattie blushed with pleasure.

"You're real kind, Mattie," she answered.

Mrs. Sabin took her by the arm peremptorily. "Come on; le's look around. I want to go an' see 'f my pillow shams are all right, an' my artificial flowers that Will's wife give me."

The crowd grew thicker. The noon sun poured straight down on the blistering tin roof. The narrow gallery was stifling. Hattie's dove-gray frock lost its morning stiffness and hung in dejected folds. Someone had stepped on the back of the skirt and had ripped it from the waistband. Mattie Sabin had pinned it up awkwardly. Perspiration rolled down the faces of the two disheveled women.

"My soul an' body, le's get out o' this;" and Mrs. Sabin pushed resolutely toward the entrance. "It's time we eat, anyway."

They found John Sears inspecting the sturdy array of lumber wagons displayed on the green. He took Hattie over to the grove to eat the lunch they had brought with them. After the food was eaten, she washed her face and hands at the pump and dried them on her handkerchief. Her drooping spirits revived.

"Can't we go round the grounds, John?" she asked, timidly.

"Jus' as well's not, little girl." He took her arm and they joined the dense crowd that slowly crawled around the enclosure outside the race-track.

It was a gay scene. White tents lined the high yellow fences; and before each one stood flashily dressed men barking in hoarse tones of the unparalleled sights within. A merry-go-round creaked dizzily to the endless accompaniment of a tootling tune. Young girls, grasping with moist hands their escorts, trooped by in draggled white muslins and blue ribbons. The sharp crack of marksmen's rifles detonated above the squirming mass. Somewhere a woman was singing shrilly. The heavy thud of an iron mallet on some mechanical contrivance punctuated the periods of the rancous voice of a man in a red vest who shouted monotonously, "The cane you *ring*, the cane you *get*." An eager group of country lads, clad in uncomfortable Sunday-best, clustered fascinatedly about a brilliant red wheel which spun to the alluring cries of its proprietor, "Every time the indicator turns, you're *sure* to get a good cigar. *Walk* up, *jump* up——" In a secluded corner a man, in a glistening white jacket, pulled languorous strands of taffy on an iron hook fastened to a post.

The afternoon waned, the crowd grew denser, hotter, more disheveled, more weary, more fretful. Hattie could scarcely drag her aching legs over the hard ground. The brazen voices of the venders rasped her nerves. John strode tirelessly on.

"I'm 'most dead, John," she murmured, plaintively. "I sh'll drop right here on the ground. I can't stand so much's I could, since——" she blushed at the unspoken condition.

"You go back to the Fair House, Hattie, right off, an' see 'f you can find a seat there. You be by the west door at five an' I'll find you." Sears patted her shoulder affectionately. "I hadn't ought to let you overdo."

She smiled gratefully and disappeared in the stream of people.

The Fair House was less crowded now. Many had left to see the afternoon ball game. Hattie crept wearily upstairs to the gallery and sank down on a chair half-hidden by a gaudy screen of pictures pasted on a green cambric foundation.

She must have fallen into a doze out of sheer weariness. Voices the other side of the screen awakened her with a quick start.

The head of the Committee was talking. Hattie recognized her nasal, penetrating tone.

"I do'know why we sh'd give ol' Mis' Sears the first prize on quilts any more'n anyone else. Look at them stitches—long's your arm. An' 'tain't bound up well, neither. Here's Aunt Hannah Lyon's quilt, that, to my mind, is a good deal better."

"Well, Mis' Sears 'll feel real hurt, I guess."

"Let her. Everybody can't win."

"Oh goodness, then, mark it first an' give Mis' Sears second. I'm so hot, I'm nearly dead. Come on and get done with it."

"There! It's done! Say, Ann Campion, what do you s'pose John Sears ever married that pindlin' little Barnhardt girl for, anyway?" The answer was lost as the two women drifted away.

Hattie Sears sat rigid and silent. Her thin little body seemed to shrink to a pathetic insignificance. In her mind there was no thought for the slight on herself, but her heart ached for Mother Sears. Two red spots burned on her cheeks. Angry tears hung on her lashes.

"Oh, they're mean, mean, *mean.*" Her throat felt tight and knotted, and the words were gasping. She clenched her fists in futile rage as her mind relaxed its numbness, and a tigerish resentment swept over her as she whispered, "Oh, I can't tell her, I can't."

"It's so mean—I hate 'em—I wish—they—were—" she spoke in a whisper—"in hell."

Hoarse shouts were heard from outside, and cries of approval. "*The balloon! The balloon!*" The few left in the Fair House crowded excitedly out of doors, echoing the words like children, "*The balloon! The balloon!*"

The big structure was deserted and still. The smell of stale fruit and food hung about the place. Hattie Sears slipped stealthily from her hiding-place and hurried to the line where Mother Sears' quilt had been placed. Beside it drooped Hannah Lyon's, the prize winner. "First Prize" stared at her mockingly.

Something flashed hotly through Hattie's mind.

"It's for Mother Sears," she muttered.

In an instant she had changed the card marked "First" to Mother Sears' quilt; the other she tore into tiny pieces and flung away.

At five o'clock John found her standing pale and dejected at the west door, her pretty finery mussed and rumpled. In her arms she carried Mother Sears' quilt.

"It's a pretty tired little girl, ain't it?" queried the big fellow as he lifted her into their buggy. Her face quivered pitifully for answer.

When they stopped at the trough to give the horse a cool drink, John said, complacently: "I s'pose mother got first on her quilt's usual."

Hattie felt in her pocket and drew out a crumpled card marked "First Prize." John laughed with pride.

"Trust mother to beat 'em all. The Searses always get first when they set out to. They drove on slowly. He spoke again very gently. "You'll have to take mother's place when she goes, little one."

Her eyes filled with stinging tears. She could not speak. Worn out and miserable, she clasped his arm and burying her face in his rough coat she sobbed wildly for a moment.

"It's nothin'. I'm just tired, John."

Mother Sears was waiting for them at the gate when they drove in. Hattie smiled at her, brightly.

"You won, mother; you won it," she cried in a queer, pathetic voice. The old lady took the quilt from her and bore it with dignity into the house. "I sh'd think I would," and she tossed her head, arrogantly.

"I'm so beat out I guess I'll go right to bed," Hattie faltered. She turned impulsively and kissed John's rough red hand.

THE light from the Sears' kitchen window streamed straight out into the highway with homely cheer. Cowering miserably in the shadow of the gaunt pine by the gate, Hattie gazed at it with regretful, anguished eyes. She looked weary and ill.

The funeral had been held at two o'clock. The house had been full of neighbors and relatives, who tiptoed noisily about, whispered in monotonously mournful whispers, and gathered in solemn knots, awed and estranged, but clinging to each other in dumb desire to be near something living, breathing. When it was all over they went away half conscience-stricken by their eagerness to get back to the real world, chirruping with chastened relief to their horses, and decorously discussing workaday topics one with another.

It was like a dream that leaves one sitting up in bed, palpitating and clammy, as Hattie thought of it. She remembered that the night following the Fair John had aroused her at midnight. She was very cold. "Mother is sick," he said. He left her alone and rode off madly into the darkness for the doctor. She could not remember what she had done until they came back. She had never been near a dying person. Mother Sears lay there, unseeing, unhearing, only a plaintive moan now and then. When he came, the doctor spoke in sharp, stern tones. Toward morning a white-faced dawn looked in at the windows. She recalled how weak and timid the lamplight had seemed then. The doctor had faced John and her quietly. "It's over," he said.

When they had come back from the burying-ground, very late in the twilight, the house was swept and garnished. A faint odor of flowers hung in the parlor. The mysterious emptiness of the house, that comes when a spirit has fled, appalled her. John changed his clothes in unapproachable silence and went out to the barn. She had gone upstairs to her bedroom to think it all out. Things grew very clear to her up there, and after a while she had written the letter. Still in her black dress she had pinned it to the tablecloth at John's plate beside his supper, and, putting on her hat, had slipped away before he should come in from the barn.

Hattie shivered, for the night was turning cold. A ball of light appeared and vanished through the trees in the yard.

"It's John's lantern. He'll be reading it in a minute. O, I can't bear it, I can't, I can't, I can't." Her voice was thick with sobs.

The light disappeared.

With one long last look, Hattie turned and went down the endless dusty road, creeping and crawling through sinister shadows.

"He'll never forgive me, never. I lied an' I disgraced his fam'ly. It'll come out in the weekly paper tomorrow, how Aunt Hannah won first prize and mother second. O my God! He won't forgive me

for being *mean*." Her face worked painfully; her tears seemed dried up back of her eyes.

"I had to go 'way. I had to. I couldn't bear to tell him face to face. I'll go back home, or hire out somewhere. I won't be no burden to you, John. I won't bother you at all; an' when the baby's born, you can have it to bring up—honest and good. He's read it by now." She tried to picture how he would look when the knowledge of her shame should be his, but she could not. Her imagination seemed atrophied; she had lost even the power to remember how the old farmhouse appeared.

"O, I love him so. I want to stay. I want to go back." She stumbled hopelessly through the darkness. "I want to go back. O, my God, I want to go back."

Somewhere behind her she heard the muffled beat of hoofs. The sound grew sharper. A horse and wagon were overtaking her with reckless, furious speed.

Hattie caught her breath, gaspingly. It seemed she must suffocate. "Oh, if it is—is—no, it can't be——" The girl shrank to the side of the road in the black shadow of a chestnut tree.

The wagon was almost upon her. It was passing. She recognized John and old Bet, the mare. Her throat was like steel; her voice struggled in it as a caged thing. No, no, she must not cry out; she must not let him hear her—or see her—he was not following her—it could not be.

A shrill, despairing cry cut through the night air: "John!"

The driver reined up his horse with one strong pull and leaped from his wagon. A trembling, panting woman flung herself into his arms and he held her there, closer and closer, his heart thumping with wonderful joy, his face wet with forgiving tears.

"O, my poor little girl, my poor, poor little girl, my little girl! Going away from me, going away? And you thought your old John would let you go, let his wife go 'way from his house and him? We won't never speak of it again, honey—it's jus' between you 'n' me—that Fair day—nobody's ever going to know. An' I guess the good Lord tempers the wind to His little weak lambs. You 'n' me'll not forget it, Hattie, but it'll keep us closer together, an' gentler, an' truer for—for——" he pressed his lips tenderly to hers.

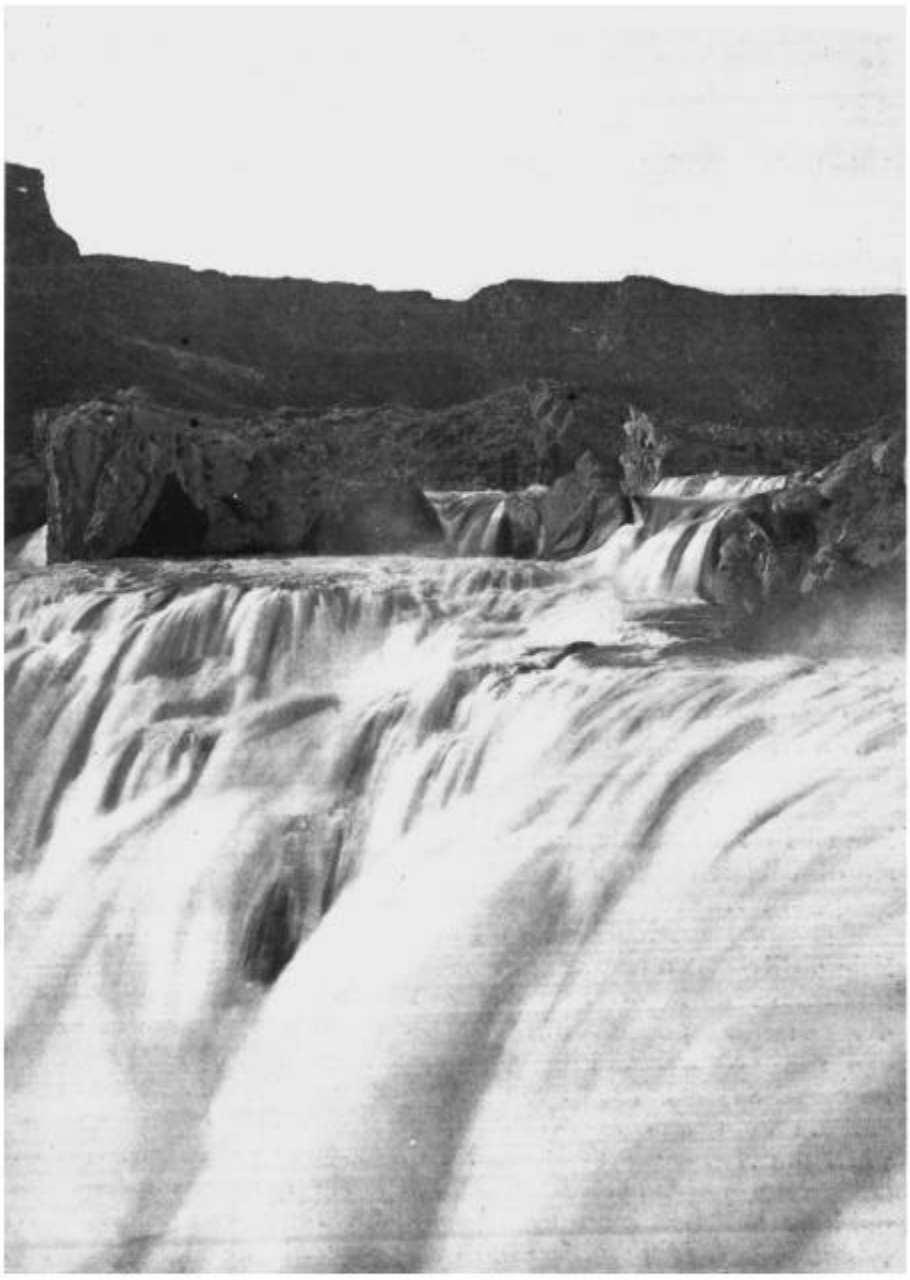
With strong, confident, forgiving arms he lifted the sobbing woman into the wagon. She laid her tired head on his broad shoulder in silent, childlike content. "We're going home," John Sears whispered, "home, for always."

# THE CONTROL AND USE OF OUR WATER-POWERS: THE GREATEST NATURAL RESOURCE OF THE COUNTRY: BY C. H. FORBES-LINDSAY

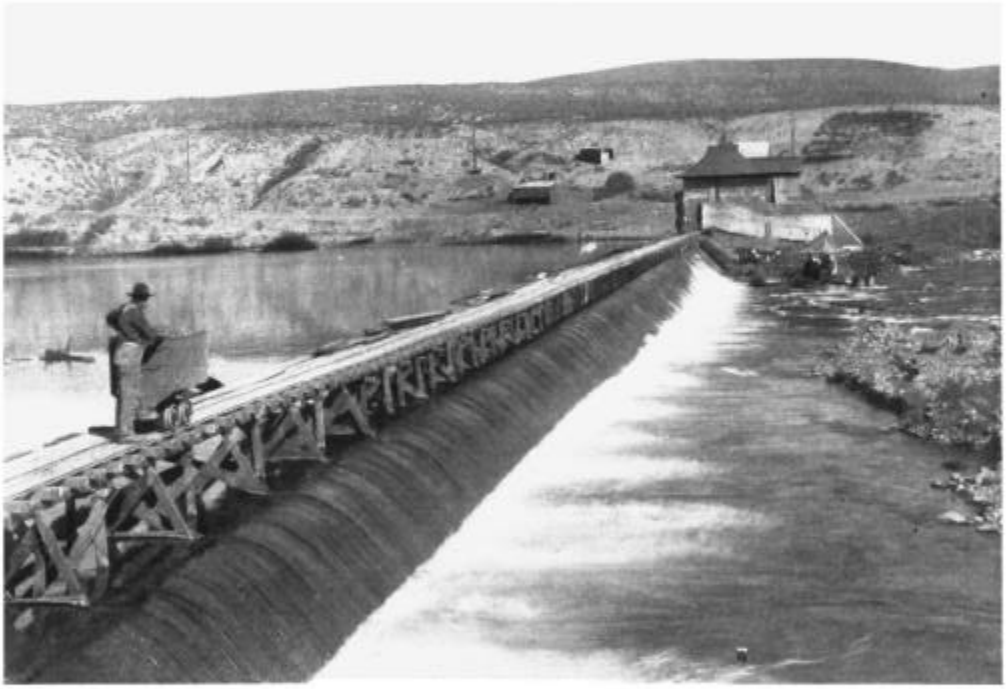
YDRAULICS is the most ancient branch of engineering. Doubtless from the very earliest times running water has by artificial means been subjected to the control and use of man. A dam of hewn stone was built at Kosheish, five thousand eight hundred years ago, to divert the Nile from the spot on which Meua desired to build Memphis. In Babylonia, India, Persia, Greece, and many other parts of the world, similar works were carried out previous to the inception of the Christian era. These were usually designed to facilitate irrigation or to effect protection from flood, but even at that early period the value of water as a source of power was not entirely unknown, and a rude water-wheel was used in some parts of the East.

The development of water-power was part of the practical statesmanship of that wonderful character, Alexander Hamilton. He was the chief organizer of a corporation styled, "The Society for Establishing Useful Manufactures," which was chartered in seventeen hundred and ninety-one, at Paterson, New Jersey. It erected a plant over the Great Falls of the Passaic. The company, which was the first of its character in this country, is in active existence today. Hamilton was interested in other enterprises of a similar nature and had the greatest faith in water-power as an agency in the development of our industrialism.

The earliest example of the production of electrical energy by water on a practical scale and its transmission to a distance was afforded by the installation and operation of a plant set up by the late Lord Armstrong at Cragside, Northumberland, in eighteen hundred and eighty-two, for the purpose of lighting a private house. But, although the utility originated in Great Britain, its development has proceeded much faster in other countries. The United States has nearly as much water-power in operation as all other countries combined. It is, however, only within the past ten years that great water-powers have been applied to the industrial needs of distant cities in this country, and the art is still in its infancy. Nevertheless, systems distributing hundreds of thousands of horse-power have been installed and their number and capacity is constantly increasing. From nineteen hundred to nineteen hundred and five there was an in-



A PORTION OF THE GREAT
SHOSHONE FALLS, IDAHO.

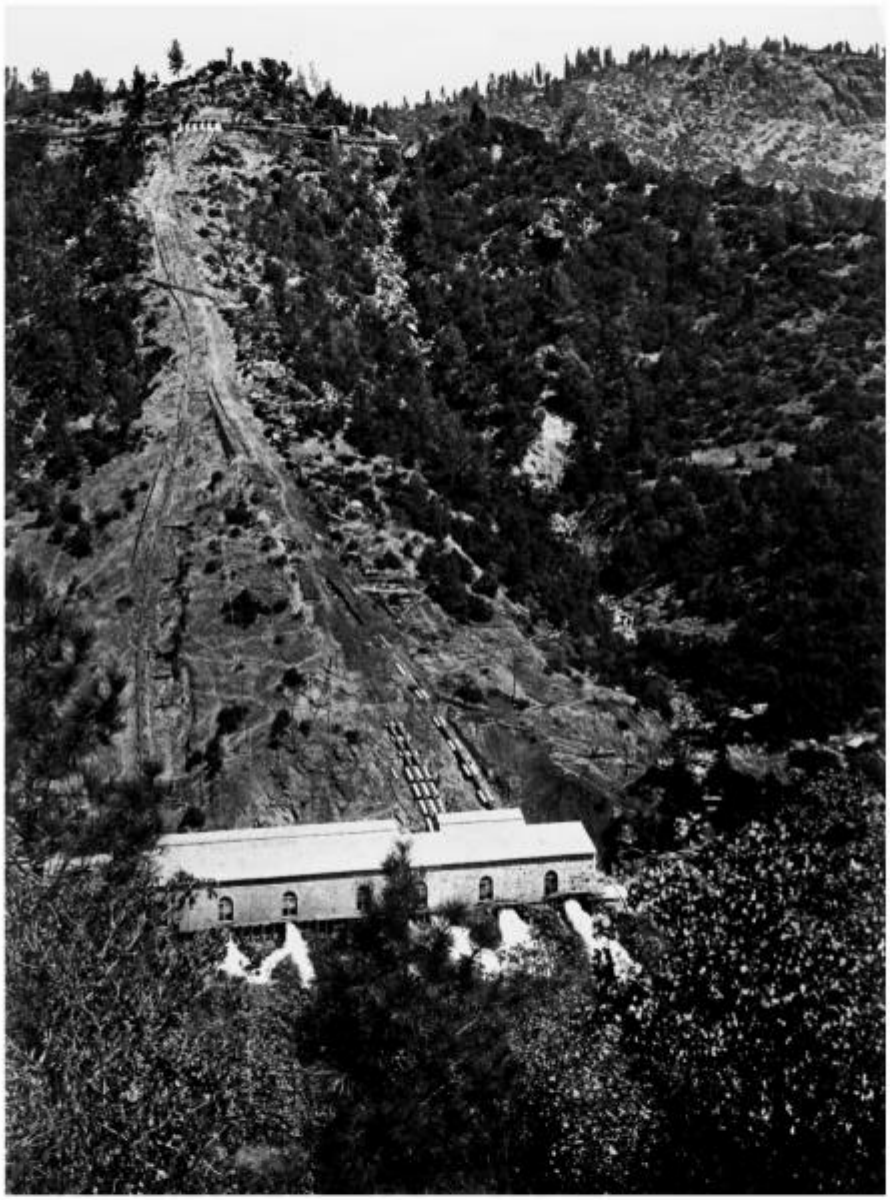


WATER POWER GOING TO WASTE OVER BEARS-TRAP DAM, ILLINOIS RIVER.

WATER RIGHT SECURED FROM GOVERNMENT BY SPECULATORS: POWER GOING TO WASTE.

BEARDSLEY FALLS AND POWER PLANT, NEW YORK STATE.

THE KIND OF EASILY DEVELOPED WATER-POWER THAT THE SPECULATORS HAVE SECURED IN LARGE NUMBERS.



HYDRAULIC PLANT AT COLGATE, CAL., SHOWING HOW WATER IS CARRIED DOWN MOUNTAIN.

crease of two hundred and seventy per cent. in the amount of electric power in use, and the greater part of it was generated by water.

Fifteen years ago, ten miles was the limit of transmission. Now the energy is commonly conveyed to points one hundred and fifty miles from its source, and considerably longer carriage has proved feasible. The longest line at present in use is that of the California Gas and Electric Company, stretching from the De Sable power-house to Sausalito, on the opposite side of the straits from San Francisco, a distance of two hundred and thirty-two miles. The future of water-power depends upon increased facilities for transmission which will not only cheapen the commodity, but also bring natural powers that are now useless within the field of marketable distribution.

WATER-POWER is the most valuable resource of the country. Our fuel supplies are rapidly diminishing with a corresponding rise in prices to the consumer. In the anthracite fields of Pennsylvania coal seams are being worked that fifteen years ago were deemed of no account. The cost of the product is fast approaching the limit at which it can be economically purchased. When it reaches this point, the bituminous beds will be subjected to a greater drain and their final depletion hastened.

Coal, oil, timber,—all the sources of energy save water,—are now in the hands of corporate monopolies and the last of these is threatened with similar absorption. During the past decade, a few affiliated corporations have been acquiring all the water rights possible in the Western sections where coal is scarce. It is almost impossible at the present time to find an unappropriated site for the development of water-power within reasonable distance of a market anywhere in the Northwestern States, or on the west side of the Sierra Nevadas. The extent to which this utility is passing into the hands of large companies is shown by the fact that in California alone four of them have an aggregate capital of fifty-five million dollars and operate thirty hydro-electric plants and eighteen steam plants. The largest of these corporations supplies power to twenty-six individual lighting companies and twelve electric railways, in addition to a number of cities and towns where it has its own substations. There is in constant operation in the State more than two hundred thousand horse-power derived from water.

The complaint against the prevailing conditions rests not so much upon the vast properties operated by these companies, although they

charge exorbitant rates for their service, as on the fact that they are endeavoring to secure all desirable sites with a view to shutting out competition. On four rivers of Northern California, where there is a potential development of eight hundred thousand horse-power, only twenty thousand has been utilized and the balance is tied up by speculative rights. That is to say, seventy-five per cent. of the power possibilities have been alienated from public ownership and less than two per cent. turned to account.

IN THE past, water rights have been secured from the Government with ridiculous ease. In the Land Office may be seen roughly penciled drawings on which casual and irresponsible prospectors have filed water-power claims, without any intention of improving the properties. In order to keep the claim alive the speculator goes to the place once a year and dumps a cartload of stone, or excavates a few cubic yards of earth, and makes affidavit that his works are in course of construction. Very frequently not so much as this is done, the grantee relying—usually with success—upon one or another flimsy excuse for extension of time. This farce is maintained until the agents of one of the monopolistic electric power companies comes along and purchases the right at a price greatly below the value, but that yields a handsome profit to the man who secured the property from the Government for nothing.

In the ten years, eighteen hundred and ninety-six to nineteen hundred and six, Congress passed thirty-three bills granting the privilege to private corporations and individuals to erect dams across navigable rivers for the purpose of generating power. In twenty-one of these cases no work has been done in furtherance of the proposed improvement and in the majority no plans have been made, so far as the Hydrographic Division of the Geological Survey can ascertain. In not a single instance did these bills provide for any compensation to the people for the valuable properties thus diverted from their possession. It seems to have been deemed quite sufficient to grant the privileges "in consideration of the construction of said dam free of cost to the United States."

Water-power sites worth many millions of dollars have thus passed out of the hands of the people and in not a few cases it will be necessary for the Government to regain possession by paying the owners at rates based on the utmost valuation. The Gore Canyon case, at present in litigation, affords a striking illustration, though only one of many that might be cited, of the careless manner in which

the Legislature has gifted rights without return, and the expensive process by which the reversion of the property to the State is effected.

Many years ago, the Burlington Railroad secured from the Government the right of way through the canyon of the Gore River in Colorado. The company made no use of its privilege but a few years since conveyed it to the Moffett Line. Recently the Reclamation Service surveyed an important project which involves as an essential feature a large reservoir in the Gore Canyon. The Service had its preparations completed to commence work on the project, when the Moffett Line restrained it from proceeding and commenced the construction of a track through the canyon, though it might, without great additional cost, carry its line outside. It is absolutely necessary—as the railroad officials fully realize—that the Government should occupy the canyon to the exclusion of the railroad and the latter will be compelled to vacate, but not until it has received a compensation which will represent a very handsome profit on a transaction made up of a free gift and a sale to the donor.

IN JANUARY of the present year, a party of promoters came to Washington, bent on one of those usually facile coups which have effected the alienation of public property worth billions of dollars. In this particular instance the lobby proclaimed its purpose on the street corners and declared it to be practically accomplished. This confidence was justified by the assurances of support gained from members of Congress before the opening of the session. The bills in which the lobbyists were interested proposed to confer upon certain affiliated corporations water rights controlling the sources of one million five hundred thousand potential horse-power. The bills would have made these enormously valuable properties a free gift to the applicants. Placing the value of an electrically transmitted water-horse-power at twenty-two dollars and fifty cents per annum, which is a fair average figure, the desired legislation aimed to donate without material consideration the equivalent of more than thirty million dollars a year.

Water rights have been acquired by the electric power monopolies with such ease and absence of question in the past that they did not anticipate any opposition upon the recent occasion. President Roosevelt's Waterways Message, sent to Congress in February, created uneasiness in the water-power lobby by its pointed reference to the necessity of husbanding all our water resources, but consternation spread through the camp of the petitioners when, in his Message of March,

the President flatly warned Congress that he should veto any bill that might be presented to him lacking a provision for adequate compensation to the people for the privileges extended by it. Despite the caution, Congress, in April, passed one of the bills in question and the President, in accordance with his expressed determination, promptly vetoed it.

THE present conservative policy of the Administration is actively antagonized by the water trust. It has even exerted opposition to the work of the Geological Survey in the dissemination of education on the subject. An interesting exhibition of its tactics was recently given in connection with the only bill that has ever been presented to Congress for a water right with a provision for compensation to the Government for the privilege sought. In this case the petitioner's proposition has been pronounced by the United States Engineers to be highly meritorious and of great aid to navigation. It includes supervision by the Government of the company's rates for service, an annual rental payment to the United States and the limitation of the franchise to the term of the tenant's good behavior. This bill had no sooner been presented than the attorneys of the trust tried to induce the beneficiary to withdraw it, and plainly intimated that in their opinion he was violating the recognized rules of the game. Failing in the first move, they offered to buy him out, and, upon his refusal, began to subject him to a subtle persecution. They submitted derogatory reports to the authorities regarding him, circulated injurious statements broadcast, and impaired his credit with the local banks.

There are now in use in the United States about sixteen million horse-power, less than one-fourth of which is produced from water. These proportions are constantly working in the direction of reversal, and in the course of a generation power derived from water will have almost entirely displaced that generated from coal. There is at present available in mainland United States at least twenty-five million water-horse-power. "Available" here is intended to signify the amount that might immediately be put to use, and that is not anything like all the power that might be practically and profitably developed, with changed conditions, diminution of coal supply and increase of its cost, improvement in transmission and other factors that are continuously exerting influences in this direction. In fact, there is enough water-power existent in this country to furnish the energy for all purposes that could possibly be used by a population twice as large as the present. A great deal of the instantly available

power has been given away and not less than one million six hundred thousand is now going to waste over Government dams. A clearer idea of this waste may be gained by the statement that at eleven tons of coal per horse-power per annum, it would require seventeen million six hundred thousand tons of coal a year to produce its equivalent in energy. Coal, it must be remembered, does not reproduce itself, while the permanency of water-power is dependent only on rainfall and the preservation of the forests.

This monopoly of water-power affects every individual in the territory where it exists. Heat, light and power,—particularly the two latter,—are practically controlled by such a monopoly. Prices are not based on a fair return from the amount invested but are so regulated as to fall slightly below the cost of furnishing the same character of service through the agency of steam. Where fuel is cheap, the price of electric power is correspondingly so. In New York, power is supplied from hydro-electric plants at twenty dollars per horse-power per year for twenty-four hour service. In the Carolinas, the average charge is fifteen dollars. In California, as much as ninety-eight dollars is charged to small consumers and fifty-eight dollars is the lowest rate in force. It is safe to say that from twenty-two to twenty-five dollars per horse-power would represent a fair average price for all localities.

WITH the advantage of electrical transmission, water-power is fast usurping the place occupied by steam-power. In hundreds of towns of America steam engines have been almost entirely—if not quite—displaced by electrically transmitted and distributed water-power. In scores of cities, large steam plants may be seen standing idle. The economy is available to all kinds of industries that require mechanical power in large or small units. No loads are too great to be operated by electrically transmitted water-power, nor are any too small to be economically included in the field of its application. The enormous machinery of rolling mills, or the sewing machines of the shirt factory may be operated through this agency, not only with saving in expense, but also with greater safety and less detriment to the health of the laborers.

Gas, like steam, is falling behind in the competition with water-power. This is true in the fields of light, heat and power, and evidence of it may be found in the cities that have the cheapest gas. Buffalo, for example, not only has illuminating gas at one dollar per thousand cubic feet, but also natural gas at thirty cents per thou-

sand cubic feet. Yet, during the present decade, the consumption of electric water-power in Buffalo has increased from practically nothing to twenty-five thousand horse-power annually.

The energy may be transmitted great distances and delivered at prices below the cost of coal; and while the tendency of the price of coal is sharply upward, electrical transmission will become very much cheaper in a few years. Then, the labor cost of operation is so very much greater in a steam-power than in a water-power plant that even with free fuel the former could not hold its own in all cases. For illustration, take the case of Buffalo, where the price of steam coal sometimes sinks as low as one dollar and fifty cents per ton and water-power is delivered from a distance of twenty-three miles. Here, a flat rate of twenty-five dollars per water-horse-power-year prevails. This charge is for twenty-four hours' service per day and for three hundred and sixty-five days in the year. It is made to large consumers by several transmission systems and is constant for the number of horse-power covered by the contract without regard to the time during each day that it is actually consumed. If the purchaser of electric power on this basis can use it only ten hours per day and three hundred days in the year, or three thousand hours in all, his rate per horse-power amounts to eighty-three cents for the energy actually consumed. Where the power can be used twenty-four hours per day and every day in the year, the flat rate of twenty-five dollars per horse-power-year amounts to only twenty-nine cents per horse-power. He would have to pay as much as this for the mere labor of shoveling coal into his furnaces if he ran a steam plant.

No factor is so conducive to the development and prosperity of an industrial community as cheap and convenient power, unless it be cheap and convenient transportation. We must ultimately depend upon water-power for the greatest amount of the energy applied to our industrial and domestic affairs. In a comparatively short time, it will be the force operating our manufacturing plants, our farm machinery, our railroads and our urban cars. Not only this, but it will be applied to most of the domestic services. The extension of this utility and its preservation from monopolistic control are matters of the utmost moment to every citizen, for it will soon become a vital factor in the daily lives of all. Already, according to conservative estimates, every man, woman and child in the United States uses on an average about seven dollars' worth of electricity every year in some form. Trolley rides account for three dollars, or nearly half the expenditure, and lighting for one-third.

# THE IMPROVEMENT IN HOSPITAL METHODS MADE BY HUMANIZING THE RELATION OF INSTITUTION AND PATIENT: BY ELIZABETH KNIGHT TOMPKINS

WORK destined to revolutionize hospital methods all over the country was begun two years ago at the Massachusetts General Hospital by Dr. Richard Cabot, of Boston. It was started under protest, permitted but not endorsed by the hospital authorities. Now it is accepted by them as a necessary part of hospital equipment and is enthusiastically supported by many of the younger doctors. The principle on which it is based is, broadly speaking, the humanizing of the relation between hospital and patient.

Dr. Cabot persuaded the hospital to let him install at his own expense, in a screened-off corner of the big outpatient's waiting room, a small force of social workers to coöperate with the usual hospital machinery, and to act as go-between or interpreter between the hospital and such patients as need its services. The work of a large hospital is, or has been thought to be, necessarily mechanical. The patient is not considered as a man or woman, but merely as a "case." What Dr. Cabot wishes to do is to transform cases into individuals.

The work of the bureau—not that it is usually called by so formal a name—is divided into a number of departments. The most extended of these works with tubercular outpatients. By the old method, the doctor at the clinic diagnosed the case, dismissed the patient with a printed circular containing directions for his treatment, and took no more responsibility in the matter. The bewildered, usually ignorant, patient, did not understand the directions, while carrying them out seemed a hopeless undertaking. He did not know how to arrange for sleeping out of doors or how to get the necessary equipment; he did not have the means, or his family did not recognize the necessity for, the diet prescribed; he could not give up his work to live; it was easier to die of the disease.

Now, the doctor holding the clinic turns the man over to the bureau. One of the workers takes charge of his case. She begins by putting him into a tuberculosis class, where he is taught the principles underlying the prescribed treatment and how to carry it out; what had been Greek to him in print becomes everyday comprehensible English or Armenian or Swedish. He is encouraged by the reports of other members of the class telling of benefit received, and is convinced that

the treatment recommended is not a doctor's fad, but a tangible good within his own reach.

The social worker under whose care he is put goes to his home and investigates conditions there. She talks with the members of his family, makes them realize the danger he is in and the necessity for the treatment prescribed. She investigates the possibilities of his sleeping out of doors, and if there are no facilities, persuades the family to move to a place where there is an available balcony, roof or backyard. The bureau keeps a record of desirable flats whose landlords are willing to let them to tubercular patients. She teaches the patient the precautions necessary to avoid communicating infection. She investigates his finances, consults with his family as to ways and means, and if outside aid is found to be absolutely necessary, interests the proper societies or individuals in the case.

After the treatment is begun, she makes frequent visits to the patient, encouraging him and acting as guide, counsellor and friend to the entire family. If it is found possible to send the patient to a warmer climate, she helps him to make suitable arrangements and finds friends for him at his destination, that he may not feel himself an utter stranger in a strange land. All this outside work is done by unpaid social workers, women who give either half or the whole of their time to it.

THE bureau has recently established a department for the benefit of neurasthenics,—patients for whose illness the doctors can, after thorough examination, find no adequate physical cause. Such patients, usually women, are turned over to the bureau for treatment. The cause is assumed to be mental and the social workers try to discover and remove it. They make friends with the patient, get her confidence and then investigate all the conditions of her life. So many mental causes produce actual disease in women!—such as the habit of worrying, domestic friction, self-indulgence in despondency and bad temper, brooding over wrongs, remorse for real or fancied sins, self-centered lives, lack of courage to face adversity, emptiness of mind and heart and a host of others. The sympathy and helpful interest of the social worker itself acts as a powerful tonic; it is everything to those poor souls to feel that they are really of importance to someone. The woman is persuaded to take more fresh air and such diversion as is possible; some change of work or of scene is managed for her; irritating conditions of home life are often done away with; sometimes she is led to forget her own sufferings in work for others.

By the kindest methods she is made to see her selfishness, her cowardice, her lack of consideration for her family. Always she is taught a little philosophy, a little of the doctrine of "never mind." The social worker in charge of this department is greatly encouraged by the success she has had. There are, of course, constant relapses and retrogressions, but no patient has yet dropped back to her original condition; there is always a material improvement in health, often a positive cure.

This department likewise interests itself in stammering children, in deficients and epileptics, advising the parents with regard to treatment and assisting them to carry it out. There is one worker who devotes her whole time to pregnant unmarried girls, acting as their friend and adviser.

The bureau coöperates with the other charitable organizations in the community; it does not itself give financial aid, but calls the attention of the proper charity to those whose needs are urgent.

Valuable work is done in the wards of the hospital. The hospital nurses notify the bureau of any patient about to be dismissed without resources, and one of the workers takes the case in hand, often procuring an admission to a convalescent home for a week or two, or looking up some suitable employment.

The bureau also aims to interest the suburbs in caring for their own sick, and keeps a card catalogue of the charitable resources of each suburb and small town nearby.

"Friendly offices" is a head under which a great deal of miscellaneous work is done, from obtaining crackers and milk for an outpatient exhausted by a long wait to taking a girl away from a life of sin. A woman has a painful trouble, curable by a simple operation, but has no one with whom she can leave her children while she is in the hospital; the bureau finds someone. In former days a woman once waited three years in great suffering after an operation was declared necessary; it was no one's business to provide for the care of her children.

Ignorant mothers, to whom printed slips are meaningless, are taught to prepare their babies' food properly. A vacation is contrived for a patient ill from overwork and an easier job is found for her. All working people sent to the bureau are questioned about the conditions under which they work. In this way sweat shop evils are unearthed and the inspector put on their track. Hygienic instruction is given to patients in their own homes; they are taught to take care of their health and to prevent a recurrence of their troubles.

## HOSPITAL AND PATIENT

FOR some time, in a number of hospitals, nurses have been associated with doctors to insure the carrying out of their directions in infants' diseases and, to some extent, in tuberculosis. Dr. Cabot aims to establish this coöperation in the case of every outpatient at the hospital, no matter what the disease. The doctor cannot judge of the effect of the treatment prescribed unless he can be sure that it is properly carried out. Such coöperation will be of inestimable value to the doctor as well as the patient, assisting him in his study of diseases and their cure.

A doctor's duty is to cure his patients by any honorable means, and not to go merely through the forms of it. When a doctor dismisses an ignorant patient with a printed slip of directions and takes no further concern he is merely going through the motions of curing him. If a patient is ill because he has not enough to eat, the doctor's duty does not end with prescribing him a tonic for general debility. He cannot discharge with a bottle of bromide his obligations to a woman suffering with insomnia because she is worrying over the bad company her young son is keeping.

A doctor's province is anything that can cause disease, the whole of his patient's life, mind, body and estate. And no deep scientific ardor, no consciousness of ability to cure or to alleviate can absolve him from the duty of kindness and consideration in the immediate present. His obligation to his patient extends to every moment of their intercourse.

But where is the time to come from? Lack of time would not excuse a surgeon from cutting to the root of the evil he is to eradicate. Instead the question should be: Why waste time in measures that do not cure? What good to turn off thirty patients in a morning if you only go through the forms of curing them? A doctor has no right to stop short of all human means.

Fortunately, most of the work in this extension of the doctor's field can be done by women and done better than by the doctor himself. Such assistants need not be paid, though every busy doctor would be the better off for a woman helper working for hire. Nowadays women are to be found who are glad to give part of their time to helping things on a bit, if only because they have learned the lesson that content in this world, after one's first youth is past, has to be bought at the price of service. Such women will willingly take the course of training in social work necessary to fit them for it. Often they themselves have toiled out of the slough of despond and so are best fitted to aid others bemired there.

# THE PRISONERS: A STORY: BY MARION WINTHROP

HANS, the canary, lived in his cage—light-hearted, you would have said, from his song,—yet with a swift wistful glance for the visitor who might bring reprieve. Hans, the child, lived in a cage also,—a cage with walls not of golden wire but of stone and plaster. Once in a long while Hans, the canary, found the door of his cage open, and learned to know that at such times he might fly about the room or pause upon the red geranium in the window to rest his easily tired wings. Once in a while—not quite so long a while—Hans, the child, could go out to play in the street or in the tiny high-walled backyard. The canary never breathed the outer air except during the brief moment of morning ventilation, and then only from under the corners of a careful handkerchief thrown over the cage to save his little yellow life from danger of cold. The child, for the same reason, was not permitted the outer air too often. His aunt, the arbiter of both their destinies, was a woman with a conscience, an American of the class and generation that regards fresh air with suspicion. And so the child spent many weary days pressing a pale little face that should not have been pale against the window pane; and the bird hopped ceaselessly from perch to perch within his narrow home, questioning fate with his pathetically cheerful chirp. Neither knew words for his desire.

The child dreamed in these long moments of the green grass and trees in the park where his father, returning from time to time from a vague somewhere, would take him. The canary dreamed, perchance, also of trees and grass and blue sky and of golden sunshine among green boughs. And when he caught sight of the solitary red geranium upon the window sill, or the sunlight sent a wandering ray into his cage, he would sing as if his little heart would break with the joy of it.

After his father, the child loved the canary better than anything on earth. "He has my name," Hans would explain, joyfully. "He is Hans; I, also, am Hans; we are both Hans." And then he would laugh. This was Hans' joke. He was a quiet child who asked his questions in shy glances. He liked to become acquainted with a new object by touching it softly with his hands. He almost never broke his toys for all his eager little spirit. His voice was low, and his pale cheeks flushed easily.

Hans' father and mother were German, but Hans had been born in America. When his mother died there had been no one to

take him but his father's brother's widow, an American living in prosperity and comfort, according to her ideas, in Greenwich village. There, in a little crooked street, in a little, but not crooked, red brick house with a white door and brass knob,—which had also three modern bells in a horizontal row signifying its adaptation to the flat class—Hans lived all alone with his aunt. There were no children in the families living on the floors above and beneath them. Even William Johnson, the colored janitor who lived in the basement, had none. Next to his father and the canary Hans loved William Johnson, who always met him with a smile and polished jest. The janitor's duties not being heavy, and being shared by his ample wife, William Johnson found time to interest himself also in a tobacco and news store around the corner. From this base of supplies he sometimes brought Hans bright-colored pictures of rather consciously beautiful ladies and angelic children. These offerings Hans' aunt smiled upon. Upon this question of taste the three were at one. From other standpoints, Hans' aunt regarded the child's fondness for William Johnson as indicative of a low taste and explainable by the fact that Hans was "Dutch."

It had not yet occurred to the child to ask himself whether or not he loved his aunt, so he did not know that he did not love her. He only knew that he did not like to watch her as he liked to watch the yellow-haired girl across the way who was always coming down or going up her steps. Hans loved bright things like sunshine and yellow hair and the canary's downy breast. He loved music, too, even the organ man's music, and perhaps that was another reason why he loved the canary, for the bird had a wonderful soft song that sounded somehow like two canaries, and bore no resemblance to the shrill, meaningless trills of most caged birds. Perhaps Hans had not been born a captive or perhaps he had caught fragments of the songs of other birds who had lived in the sunlight. The canary had belonged to the child's mother and had come with him when she died. Hans' aunt did not like the canary, but she tolerated it and cared for it, being, as has been said, a woman with a conscience.

Hans' father was engaged in some nondescript traveling business of apparently not too lucrative a nature. From these trips he made infrequent visits to his child, during which time Hans was very happy, for then he took many trips outdoors and was secretly fed much bright-colored candy. He seemed a cheerful soul, Hans' father, although given to superficial sighing fits when reflecting upon his inability to stay at home "*bei mein Kind.*" Hans never knew pre-

cisely when his father was coming, but he knew—and his heart would give a great bound of joy when he heard the heavy step in the hall—that when the door was open he would be lifted high by big strong hands with the loving—"*So, mein Kind! Jetzt Papa kommt wieder!*"

It was in the time of the spring cleaning when it seemed as if Hans' little spirit could hardly contain itself indoors that there came a sudden warm "spell," as his aunt called it, and she decided it to be more than ever essential that Hans should stay indoors. Hans, the canary, came under the ban also.

"Cannot the cage of Hans hang outside the window today?" asked Hans one perfect spring morning. "So hangs the bird across the way."

"Want your bird to catch cold and die?" was the answer.

Later in the day when the sun was almost hot the child ventured to plead again. "Surely, good aunt, Hans cannot now catch cold if he is by the window——"

But his aunt only replied, "In that hot sun, you silly child! Don't tease. I'm just clean used up with all the work I have to do."

The next day being warmer the bird was banished even from the daylight. The cage was placed on top of a wardrobe in a dark corner of the inner room. Hans pleaded in vain. "He loves so much the sunshine. . . He sings ever in the sunshine. He is so sad in the dark."

"You don't know what you are talking about," his aunt reproved him. "That hot sun will make him sick and then you won't have no more canary. Besides, I get tired hearing him screech all day. It makes my head ache."

Hans' eyes filled, but he knew better than to protest. Moreover, it was not his way. He was a submissive child. So the canary lived in darkness through the wonderful spring days and scarcely ever sang any more, although he never failed to answer with a cheerful "cheep" when Hans stood at the foot of the wardrobe and called up to him. And the child spent long hours kneeling in a chair by the window, watching the swift white April clouds roll past. Then, one day, unexpectedly, came the sound of the beloved step on the stairs, the familiar stumble at the turn near the top and the hand feeling for the knob, and Hans was at the door, crying, "*Vater, mein lieber Vater,*" and his aunt was telling him to stop making such a racket and Hans was not hearing, for by that time his pale cheek was against a ruddy, prickly cheek and the big bass voice was saying cheerily, "*So, mein Kind!*"

Soon it was discovered that the child was to go to the park,—

not at some distant promised time, but right away that very minute, and in the joy of that realization the silent canary in his darkened cage was forgotten.

And so it was through the blissful week that followed. The child, because he was a child, forgot the bird's dark little life in the new lightness and freedom of his own. But at length came the morning—the gray miserable morning—of the last day, yet not so unhappy as some last days, for *lieber Vater* was to come back soon again, and there was even the rosy hope of a time when there would be no more separations, when they could be together all the days.

"But now for many days I shall have no one but Hans," said the child, sadly. Then recollections came to him and he exclaimed, "Poor little Hans! He sings no more. He is ever in darkness."

"Why, then," asked his father, suddenly realizing that he had not seen the bird. "Why, then, is the *Vögelein* in darkness? It is not kind."

"The bird bracket was taken down at house cleaning," the aunt returned, shortly, "and I haven't had time, with the extra work and all, to put it up." She did not care for Hans' father, who seemed to her foolishly expressive and unreasonably cheerful for one who had achieved so little in worldly success. Nevertheless, she had the deference of her class toward his sex and did not dare to put him aside as she had Hans. So when he demanded firmly, "Where, then, is that bracket? I, myself, shall nail it, und the *Canarienvogel* shall sing once more——" she did not refuse.

So the bracket was brought out and Hans' father put it up again in the window and hung the canary's cage upon it then and there.

When the bird found himself once more in the sunlight he flew up to the top perch with swift turns of the head and an inquiring "tweet;" then, when he found it all quite true, such a song of joy rushed from his yellow throat as no one had ever heard before. And Hans danced for the very happiness and wonder of it, and his father smiled and ejaculated, "*Wunderschön!*" several times with a beaming face. Then he told Hans to run and get his coat, for they were going to the park for their last walk. As they left the room the bird was still singing—singing his wild little song of joy. But after the door had closed the song twittered and faded away, and the bird fluttered to the bottom of his cage, suddenly still.

When the child came home it was late and the heavy night cloth was thrown over the bird's cage. It was the last evening with *lieber Vater*, and so again the canary was temporarily forgotten.

Hans' father left early in the morning before he was awake, and directly after the child's breakfast his aunt went out for her morning marketing. Left, alone, Hans, who seldom dared take the initiative in the presence of his aunt, ran up to the bird's cage and threw back the cloth. But there was no cheerful chirp and upward flash of yellow wings in answer. Instead, a strange sight,—Hans lying on his back in the bottom of the cage with helpless little claws upturned.

Hans had never seen death in any form, yet something about the bird's stillness sent a pang through him. He chirped and called the canary by name; he coaxed it, he whistled to it; then, with a curious sinking about his heart, he carefully opened the cage door and slowly put in his hand. But the bird did not start up as he had half expected. He touched the downy feathers softly. The wings were curiously stiff, but the little body was limp. Very gently his hand closed over it and drew it out of the cage.

He was still standing there, looking down at it, when his aunt came in. He looked up at her with frightened eyes when she spoke to him, but it was not his aunt that he feared this time.

"Hans is very still. He sleeps, perhaps," he whispered. "Yet I fear—I fear he is ill, good aunt."

His aunt glanced at the bird. "He is dead," she said. "I told you that hot sun in the window would kill him."

"Dead," repeated Hans, troubled, wondering. "What is it to be dead, good aunt? Is it to be very ill?"

"To be dead is to be dead," was his aunt's explanation. "Your bird won't sing any more, Hans. You'd better go out in the yard and dig a little grave for him. It's a pleasant day. I guess it won't hurt you if you wrap up good. You can have the trowel if you're careful not to lose it."

Confused and trembling, Hans stumbled out of the door, down the stairs, and out into the dingy little backyard. Out there he sat down on an empty box, still holding the bird in his hands. From time to time he spoke to it and lifted it to his cheek, saying its name softly. So William Johnson, coming out with a fluent song and a can of ashes, found him.

"That you, honey? What you doin' over there so still? What you got deah?"

Hans held out the dead bird with mute questioning. He tried to speak, but could not.

The darkey's smiling face became clouded with sympathy and consternation.

"Suah, honey!" he ejaculated. "The pore little bird's daid! How come he died? I hear him singing so hard only yesterday."

The child's lip quivered. "So he sang when I went away with *lieber Vater* then—this morning——" his voice sank to a whisper, "in his cage, I found him so."

There was a painful silence which William Johnson broke twice to say, "It's a shame, honey, it cert'nly is."

"Oh, William Johnson," cried Hans, suddenly sobbing, "Won't he ever, ever sing again?"

"I'se feared not, honey," William replied, reluctantly. "Dis yere little bird won't sing no more. But I reckon yore papa 'll buy you another bird——"

But Hans interrupted him, passionately. "I don't want another bird, never—never—only Hans."

Then kind William Johnson had nothing more to say except, "Doan' you cry, honey, doan' cry."

"Oh, William Johnson," sobbed Hans, "do you think the good God will let him in the *Himmel?*"

William Johnson looked doubtful a moment, then, the child's sobs being very distressing to him, said, soothingly, "I reckon so, honey. I jus' reckon He will, for we cert'nly hear tell about the birds of Paradise, so there surely mus' be birds a-dwellin' there."

"William, I wish also to go there."

"So you will, honey, ef you's a good child, as you mos' usually is. But you doan' want to go right now jes cause yore little bird's done died."

Hans cried more softly. "He was so happy to be once more in the sunshine . . . he sang so beautiful a song . . . and now . . . he will not sing any more."

"I reckon the sunshine here ain't a patch on de light ob de glory ob de Lord," said William Johnson, solemnly, "so doan' you cry any more 'bout yore pore little yellow bird. He may be singin' in Paradise dis blessed minit."

"Oh, William Johnson, do you really think so," Hans whispered, ecstatically. Then seeing the change in the child's face, William Johnson reiterated, positively, "I'se jes plum sure of it, honey."

"Hans, Hans!" his aunt's voice called from an upper window. Come in. The sun is getting hot, and here is a letter from your father."

And one Hans went back to his prison from which he was soon to be free. And the other Hans, freed from his prison forever, had flown—where?

# HOW TO MAKE SMALL FARMS YIELD LARGE RETURNS: PREPARING POOR SOIL FOR INTENSIVE AGRICULTURE: BY E. J. HOLLISTER

IT HAS been amply demonstrated, especially in Europe, that farming, when intelligently done, may be made very profitable on lands that seem naturally unproductive. The recognition of this fact in our own country has already encouraged a movement from the high-priced lands of the Middle West to the cheaper lands in the South and the Atlantic Coast States. The demonstrations made here are largely responsible for the movement that is now setting in from city to country, and the outlook grows steadily brighter for those who are striving to change from the dependent life of the wage-earner in the city to the independence to be found in the country, where, by their own efforts intelligently applied to the cultivation of a few acres, it is possible for them to produce enough to meet the needs of a family and to have something left at the end of the year. But to do this, the city man must realize that it is much easier to apply the fundamental principles that bring success in agriculture to a small acreage than to a larger tract. Very few farmers, gardeners or fruit growers take into account the possibilities that lie in an acre of land, representing as it does forty-three thousand five hundred square feet—an area equal to seventeen city lots twenty-five by one hundred feet.

In buying a small farm it is well to purchase, if possible, at least ten acres, even if it should not be feasible for the first few years to bring the whole area into condition to produce the best results. Roughly estimated, the cost of putting ordinary land into such physical and chemical condition as to yield large profits would be about one hundred dollars per acre, fifty dollars of which would be expended for underdrainage and other means of controlling the moisture in the soil, and a like sum for fertilizing. For the first year it would be much more practicable and profitable for the man of moderate means to prepare thus thoroughly only one acre of a tract of ten acres, reserving the other nine for future use.

The one acre could be prepared as described in detail later in this article, while the remaining nine are being prepared more gradually by first sowing leguminous crops to be ploughed under, and then by putting the tract into clover until it should be found expedient to drain and prepare it with a view to getting the utmost results from the soil. If one hundred dollars should prove too great an initial expenditure,

it would be better for the first season to drain and fertilize a half or even a quarter of an acre, at an expense of fifty or twenty-five dollars, as the case might be, rather than to half prepare the larger area. If the preparation of the land should begin in spring, it would be wise to sow the reserve portion at once to clover, which builds up the physical and chemical condition of the soil and also yields a fairly profitable crop. But, if the work begins in midsummer, it is best first to sow oats, which will make a rapid growth of stalk before the frost comes and can then be ploughed under, leaving the ground to be reseeded with rye for the winter covering that is so beneficial in protecting the soil against packing under the beating rains,—this to be in its turn ploughed under in the spring. The land then, with the aid of chemical fertilizers, will be ready to produce fairly good crops, so that it need not be held at a loss during the time that must elapse before the whole tract can be drained and prepared for the quick and large results that accrue from scientific methods of intensive agriculture.

If, however, it is possible to do without more profitable crops for a year or two, the land would be brought into much better condition by sowing with clover until it is needed for other crops. If it should be possible to leave it entirely to the business of preparation, more leguminous crops, such as soja beans or cow peas, could be sown and ploughed under after they reached their growth. These are not profitable crops, but they make excellent fertilizers. If a certain amount of chemical fertilizer can be added to each one of these fertilizing crops when it is planted, so much the better for the land, which will be gaining strength all the time and can be drained and thoroughly cultivated, acre by acre, as seems practicable to the farmer. In the end, of course, the whole area should be drained and prepared with regard to the physical and chemical needs of the soil, so that it may do its work sufficiently well to produce a comfortable income for the family living upon it.

IN BEGINNING the thorough preparation of the soil, it should be understood that plants in their growth make use of thirteen chemical elements. The most important of these,—and the ones which may be replenished or increased through artificial sources,—include nitrogen, phosphorus, potash, lime, magnesia, sodium, iron, chlorine and sulphur, all of which in their natural state are secured from the soil by the plant when acted upon by moisture, heat and the gases of the air. The minerals available to plants are situated in the

space or depth of soil that extends to five feet below the surface, and, through a wise provision of nature against the too rapid exhaustion of these mineral plant foods, the processes by which such minerals are transported from the lower stratum and prepared on the way to the earth surface are very slow. Hence, the secret of success in producing a large yield of any particular crop depends very largely on the amount of assistance given to increase the normal capillary action by which the soil water carries to the surface the minerals in solution.

The necessity for underdrainage rises from the fact that in early spring the soils are saturated with water to such an extent that this process of bringing to the surface the mineral plant foods is prevented until such time as rains cease and summer heat evaporates the surplus moisture. It will also be understood how, with a return of wet weather in the later spring months, the process would again be checked, and, as such weather conditions sometimes extend well into the summer, many of the seeds decay soon after planting, and there is but a poor growth of those that by reason of extra vitality have sprouted and come to the infant plant period.

A good idea can be gained of the process of capillary attraction in soil by filling a common lamp chimney with dry sand, then placing the bottom of the chimney on a plate on which enough sand has been placed to raise it a little and so leave a space between the edge of the chimney and the plate. Then fill the plate with water and watch the process. To the naked eye, the water seems to be absorbed by the sand, but the movement is actually brought about by the fact that the soil particles attract sufficient water to form a thin film of moisture around each one. These films of moisture, as they form, move from one soil particle to another, gradually creeping up and dissolving and carrying with them the minerals in solution to the surface. Thus the lime, potash, phosphorus and other minerals are brought up to a level where the earth has been warmed by the sun to the point that makes fermentation possible. Here much of the water passes off into the air, leaving the salts, which are too heavy to evaporate, in what we will call the "foot surface" or feeding ground of the plants, that lies within reach of the action of the soil fermentation which prepares the food.

These processes are assisted and protected by the introduction of underdrainage. Moreover, by draining, the land can be prepared for crops much earlier in the spring. Seeds germinate uniformly and plants root deeper by reason of the removal of surplus water and the consequent increase of soil temperature. The roots are also

out of danger from the surface droughts which usually appear after the spring rains cease. Plants so situated, by reason of the enlarged nourishing area, not only grow faster and mature earlier, but give almost a certainty of increased yield and greatly improved quality.

ANOTHER strong reason for draining is that while it is absolutely necessary to remove surplus water in the spring in order to promote the growth of plants, it is just as necessary to provide a sufficient absorbent by which the moisture may be conserved from shower to shower during the development of the crop. The necessity of this will be better understood when it is remembered that it takes sixty gallons of water to make a pound of hay, for the reason that the minerals must be in very weak solution before they can be taken up by the plants by absorption through the root hairs. Moreover, these root hairs contain a mild acid, the density of which must exceed that of the soil water before the process of absorption can take place. Thus it will be seen that a constant stream of water slightly charged with minerals must continually flow up through the system of the plant during the growing period. This water, after having assisted the other natural processes of development, is thrown off by the plant into the atmosphere. The tangible result of this action may be found by burning some plants and analyzing the ashes, which represent the mineral matter so taken from the soil.

Underdrainage is necessary even in parts of the country where irrigation is practised, because of the rapid rising of the salts in solution to the surface. This process, in the semi-arid regions, is promoted by the action of the water in dissolving the salts and the rapid evaporation that naturally takes place in all dry atmospheres. In these regions the evil effects of alkali would be prevented by the use of underdrainage, and the deeper rooting of the crops would increase the amount of decaying vegetable matter in the soil which is so necessary in the conservation of moisture during the growing period of plants. The moisture thus conserved is within reach of prompt delivery to the plants, and, moreover, the decay of this vegetable matter furnishes a counteracting agent by its combination with the alkali, thus forming a neutral body.

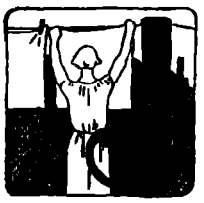
In the matter of providing foods for different crops, the Germans have already adopted a very good idea, which also has been found to work successfully in this country. The soil is regarded by them as the resting place of plants, therefore a place in which a good supply of all fertilizing elements should be put. These foods have been classified

under four heads,—chemically speaking,—nitrogen, phosphoric acid, potash and lime. The application of lime, however, is in most instances necessary only once in four years, and then only at the rate of five hundred pounds to the acre on ordinary soils, while it is necessary to apply bone, sulphate of potash and such nitrogenous foods as nitrate of soda, dried blood, cotton seed meal and farmyard manures annually in order to furnish a sufficient amount of food to get profitable results. Generally speaking, two hundred pounds of sulphate of potash, one thousand pounds of fine bone meal and two hundred pounds of nitrate of soda applied to an acre of land annually with ten tons of farm manure or its equivalent in green crops turned under,—and always with the precautionary measure of underdrainage, —would get really phenomenal results, which again might be largely increased by the selection of seeds and the careful tillage of the soil, care being taken not to plant so closely as to induce competition among plants beyond the power of the water-holding capacity of the soil.

The average cost of underdrainage would be fifty dollars an acre a cost which is but nominal when it is considered that tile drains last for a hundred years or more. The annual expense covering a period of years would not exceed fifty cents per acre. Moreover, as we have already said, it would not be necessary to complete the improvement the first year. The start thus obtained, though, would increase the profits sufficiently to carry on the improvements until completed. The annual expense of fertilizing would not exceed thirty dollars per acre.

Where land is stony or it is thought best to remove superfluous fences, the expense of underdrainage may be greatly reduced. It is quite practicable to dig the same sort of trenches for underdrainage that are used for drain tiles. In both cases the stones are so placed that an opening is formed at the bottom for drainage, the trench is first filled within two feet of the surface with stones, over which earth is placed to the top. Another cheap method of draining is in the use of poles cut from small trees and placed in the trench, two on the bottom and the third on top, forming a right angle of the three and leaving an open space for drainage. These poles are first covered with straw, leaves or sod, which prevents the loose earth with which the trench is filled from working down and clogging the drain. Where a farm is located near mills that use wood as fuel, the expense of fertilizing can be easily reduced, for wood ashes make a fine fertilizer when the expense of cartage does not have to be counted. Leaf mold from the woods helps to cut down the fertilizing bill.

# THE THATCHED ROOFS OF ENGLAND: AN ANCIENT CRAFT WHICH STILL EXISTS AND CONTRIBUTES MUCH TO THE CHARM OF THE COUNTRY: BY HERBERT M. LOME



JUST how and why some English villages with which the writer is familiar, and certain English country houses of which he has the freedom, are possessed of an atmosphere of "homeness" that seems peculiar to them, had, in a way, puzzled him for long. And it was not until a recent springtime that the pleasant problem was solved. Fanciful as it may sound, the mystery lay to a very great extent in climbing roses and thatched roofs, especially the latter. So it is with these same roofs that this article has chiefly to do.

As has been said, it was springtime. Also it wasn't raining, and the sun shone placidly. And the setting was in North Somersetshire, by which you, who know your England at such periods and in such places, will understand that the air was sweet and bland, having a clarity of touch and vision; that overhead was a translucent blue such as is rare in any other clime; that an evasive glitter to the northward gave hint of the proximity of the British Channel, the normal amber of which, filching the tone of the sky, brought into being a flood of indescribable but fascinating hues. The peaks and upper stretches of the arc of hills surrounding the little village were brownish-gray with budding heather. Valleys and woods and meadow-lands wore garments of tender green. On hedge bank and copse slope were primroses; thick and of the color of July moons. In shady places, one discovered clumps of violets, dense and odorous. From near-by orchards, throstles whistled, and there was a constant flutter of happy wings between pink and white blossoms. Blackbirds sprang from leafy fastnesses only to dart out of sight again, shouting melodious defiance to the wayfarer. Hosts of small birds flirted and flitted in the Scotch cedars which dotted the lawn, or discussed mating affairs on the lawn itself, or in the rose bushes and syringas of the long garden. One could catch the pleading notes of the wood pigeons in the trees of the little "combe" that lay to the east. And the casual sounds of human presence and labor which seemed part of, yet dominated, all else were pleasant, even comforting. There were broken bits of a shepherd's call to his dogs; faint and stray shoutings from ploughable lands, and nearer, the gossip and tinkle of a farm dairy mingled with the drone of a neighbor talking bees to a crony.

So, being not many days removed from the roar and rattle of New York, a chair was drawn a trifle closer to the bay-window which stretched almost from the ceiling to the floor; and there followed the closing of a magazine and a restful reveling in pleasant sights and sounds. But seeing that one's birthplace was some thousands of miles westward, there came a sort of unacknowledged sense of shame in that one felt so entirely and comfortably "at home." And then, by degrees, came the revelation that, apart from people, a sense of "home" is more or less dependent upon externals. When, furthermore, the chief of these externals takes the form of walls covered with jostling growths of Marshal Neil roses, while the roof above has a wheat-straw thatch with broad eaves which invite house swallows to build their nests beneath them,—such eaves being cool in summer and snug and warm in winter, and fitting into the scheme of the surrounding landscape marvelously,—it follows that cottage or villa or homestead, so fashioned by man and nature, is well nigh irresistible to one having the home-hunger.

NOW it would seem that only the people of those lands in which the climate is fickle, or doesn't invite a life in the open, are possessed of real homes; by which term is meant dwellings large or small which have an indefinable something about them that makes for comfort of body, peace of mind and an affection for the dumb things which bring these qualities into being. Such homes are the human reply to the total unkindness of nature, especially to that phase of it expressed in weather conditions. And because of all this, the thatched roof is satisfying to a degree, because it appeals to the art instinct by reason of its shape, hues and associations; it hints at home ties of the firmest and home people of the dearest, and it gives promise of that ease and protection which are all the more acceptable after stress of storm.

That England has not a monopoly of thatched roofs is made plain to the tourist on the other side of the water. In Holland such roofs abound, and in this connection it may be noted that the thatches which, happily, are beginning to be favored by owners of country estates in the United States, are for the most part distinctly Dutch in design. Especially is this true in New York, Pennsylvania and the New England States. While the house itself may hold to an accepted style of roof, yet thatches are on the increase when it comes to garden pavilions, shrubbery houses, shelters and the offices and attached buildings in general of a summer home. Another use of thatches

in this country is that of sheltering English pheasants and other game birds whose natural habitat during the winter months is in a milder climate. In these cases the shelter itself is usually made of bark, while the thatch on three sides slopes almost to the ground. The southern exposure has a somewhat abbreviated roof. So harbored, the birds pass in comfort the season which would otherwise prove fatal to the majority of them.

Rural Germany also affects straw or reeds for house coverings, and the same remark holds good with regard to many sections of agricultural France. But some of the quaintest of these roofs are of Japanese model and fashion. In these, as well as in the Dutch forms, ridge poles, spurs and gables of an ornamental sort are frequently seen, and also the edges of the thatch itself are cut and trimmed decoratively.

As has been said, wheat or barley straw, preferably the former, is commonly used by the British thatcher, who, by the way, is looked upon as an artisan of repute in the districts in which his services are in demand. And rightly, too, for his craft is ancient and honorable, being both useful and beautifying. However, for "fancy" work, long meadow grass is sometimes used, also a species of rush, and a reed which is found in rather spare quantities in the south and west of England, and has, it is said, the quality of getting tougher as it grows older.

ONCE upon a time, two amateur botanists were hunting bog mosses on Exmoor, on the confines of the land of *Lorna Doone.* About the hour of luncheon they found that their enthusiasm had led them far afield, a good hour and a half from the farm house which they had made their temporary headquarters. The only place which yielded promise of food was a shepherd's shack half a mile distant, so thither they went. That the shack, or rather its owner, a small, wiry, dark man with curly hair, could offer nothing better than brown bread, which was woefully "clit" or heavy, and raw onions, is neither here nor there. The point was, that the roof of the shack was artistically thatched with layers of pleated reeds.

"Feyther taught I th' way to do un," explained the shepherd with an upward jerk of his thumb toward the roof. "An' his feyther taught 'im avore that, an' his feyther avore that an' back an' back t'will nobody can think."

"An hereditary art, evidently" said one of the moss hunters to his companion. "But I never saw thatches like these outside of the

AN OLD THATCHED HOUSE IN THE PICTURESQUE VILLAGE OF WILLITON, SOMERSETSHIRE.

THATCH AND ROSES ON BRIDGE STREET, WILLITON, SOMERSETSHIRE.

THATCHED HOUSE OF THE BETTER CLASS FARM HAND IN SOUTHWEST OF ENGLAND.

A SPECIMEN OF THE VERY OLD TYPE OF THATCHING IN SOMERSETSHIRE.

A VENERABLE THATCHED DWELLING IN HAMPSHIRE.

AN INTERESTING THATCHED ROOF-LINE TO BE SEEN IN AN OLD HAMPSHIRE STREET.

A CLACHAN IN THE HIGHLANDS OF SCOTLAND, THE THATCHES SECURED WITH WITHES.

THE "CAT HOUSE" AT HENFIELD, SUSSEX: THE FRESCO UNDER THE EAVES IS A SERIES OF CATS: THE OWNER HATED BIRDS AND CHURCHGOERS.

Low Countries. Safe bet that this fellow is of Dutch descent." Then he said to the man of Devon, "And what is your name, may I ask?"

"Well," replied the shepherd, "most volk call I Van, but ma right name be Henry Van Torp. They do say that ma gurt grandfeyther were a-vitin' against England and were took prisoner and married a Devon girl an' settled 'ereabout"—he indicated the southward sweep of the moor—"but these be a lot of voolish tales to ma thinkin'."

Which statement proved among other things that the shepherd himself was historically a rather interesting issue of the times of Admiral Blake and that a craft or art persists if it does not come in contact with modifying or disturbing influences. But, anyhow, the Exmoor pleated-reed thatch is the sole specimen of its kind that the botanists ever knew or heard of outside of Holland.

As has been said, the thatcher's calling is an honorable one, as well as picturesque. Whether he, clad in an apron of some tough material, armed with comb and beetle, shears and mallet, is patching up a roof that for a quarter of a century has bidden defiance to rain, snow or wind; or whether he is bringing into being a totally new thatch, he is usually serious, intent, busy, yet not quite unmindful of the interest shown in him and his work by the inevitable crowd of children and loungers. He who records this knows, for has not he watched the thatcher at his task many a time and oft when the eaves of Mary Green's cottage had grown scant and scraggy; or a gusty night had played havoc with the house-leek laden roof of Rob Hodges, or sudden holes had developed in the thatch, beloved of bats and sparrows and swallows, which crowned the rambling homestead of Farmer Jorkins? Be it said, too, that never was there known a thatcher who did not take a pride in his craft or who was not willing to subsequently talk the job over,—its art and its mysteries,—at The Pot and Plough.

THIS being no dissertation on the trade of thatching, there will be no effort made to tell how the thing is done, except from the layman's viewpoint. The framework of the roof seems to need no special preparation to receive the thatch, except that laths and rafters in general shall be fairly close together, to afford the needed support for the layers and bundles of straw. As a preliminary, the thatcher packs the exterior roof with his bundles, each of which is of the proper length and usually bound with withes, or willow twigs.

Then comes a pressing and pounding with the mallet so as to get an evenness of surface and a solidity of foundation.

Then follows the laying of more bundles, which are kept in place by long poles pending the arrangement of the straws with fingers and with the combs; this for the purpose of getting them even and pointing in one direction. After the bundles have been so laid, beetled, combed and laced into place with added willow twigs, the poles are removed. When the required thickness has been reached, the shearing of the thatch in general, and of the eaves in particular, begins, and it is now that the art of the thatcher is made apparent. To lay the foundation was a comparatively simple matter, but to trim and finish off the roof calls for true handicraft. The shape and thickness of the eaves varies with the taste of the thatcher, or the demands of his patron. Not infrequently the willow lacing is apparent near the edges. In other instances, however, it is hidden, the roof presenting a smooth surface which is as pleasant to the eye as it is impenetrable to rain or snow. The final layer of straw is kept in place either by what is known as underlacing, or by being thoroughly hammered and smoothed with the mallet. Simple as is the telling of all this, the actual work is more or less difficult and it isn't every thatcher who is qualified either by nature or practice to put together a roof which both artistically and practically is of just the right sort.

It may be said here that the thickness of the eaves does not indicate that of the thatch. There are reasons for this, the chief of which is that the eaves bear the brunt of weather conditions, and they are constructed with this in view. More than that a thick eave suggests a sort of richness of roof, which, by the way, is not always justified by the facts. And the experienced cottager will tell you that the dimensions of the eaves, particularly those which come over windows, have much to do with the coolness of rooms in summer and their warmth in the winter.

Given the skill and patience which are required to thatch a roof evenly and properly, the art required to finish it off, especially the ridge of the thatch, is considerable. This much in regard to English thatches. In the case of those of Japanese and even Dutch model the difficulty is increased. Sometimes in these last cases ridge poles are used with ends projecting beyond the gable. Others are wrought in a general upward curve, and there are still others in which a round ridge pole projects through the thatch at the gable peak, at which point a flat spur of wood springs up from the ridge, to which is at-

tached at right angles a structure made of wood which projects two feet or more beyond the gable.

In some sections of Great Britain that are near the sea and exposed to the wind the thatches are interlaced and held down with withes which are visible on the exterior of the roof. Thus in the case of the majority of Scotch *clachans*, or groups of farmhouses, the roofs are of the type just spoken of.

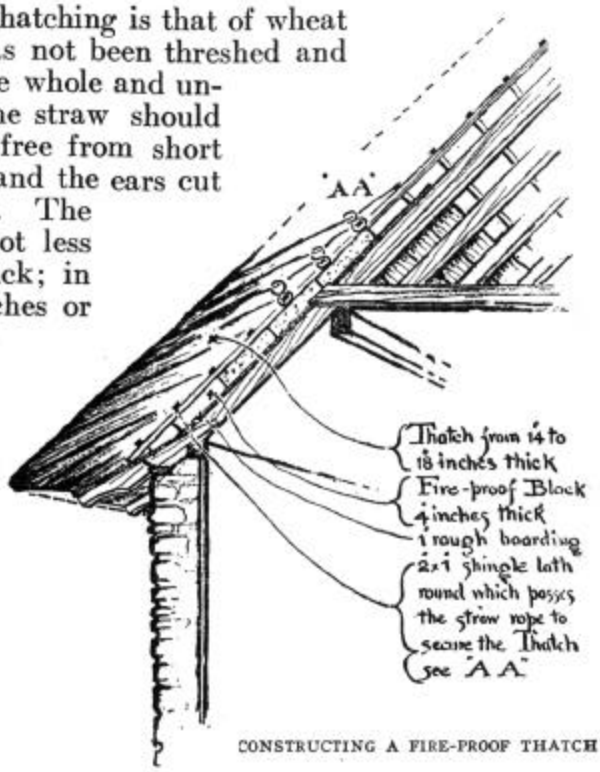
There are also ridges made of tile, but these are few so far as England is concerned. In America, however, such ridges, together with other decorative forms borrowed from European and Eastern nations, are to be seen in plenty. And it may be added that the eaves of such thatches are fancifully made, and differ widely in character. In Pennsylvania, for example, the writer remembers seeing a thatched roof with a flat ridge of Japanese design, on which was a luxuriant growth of iris and red lily. Such ridges are characteristic of village life in Japan.

Sometimes, although rarely, the British cottager so far departs from conventional lines as to have his thatch so trimmed that it suggests a series of thick layers rather than one smooth, sloping surface. These layers may be shingle shaped, circular, etc. It is said, however, that they do not stand the weather as well as the ordinary roof. On the whole, then, and from an artistic as well as a wearable standpoint, the old-fashioned form of thatch is the best.

A curious illustration of the decadence of the thatch as a covering for dwelling places is furnished by London. We are informed that, fifty years or so ago, roofs of straw were not unknown in the British metropolis. They were then fairly numerous in the suburbs and discernible at odd intervals near the central sections of the city. Today, thatched roofs in London are pretty nearly as rare as eggs of the Great Auk. There is a well-preserved thatch in Camberwell Grove that is declared on authority to be the work of a highly skilled artisan. Then there is an inn called the Plough at the eastern end of the Grove which wears an ancient thatch with distinguished effect. Furthermore, there is a thatched house on the Bow Road not far from the depot of the North London railroad. Unless a real estate boom has recently swept them away, there are a couple of thatched cottages on Hackney Downs. But these are about all. Although every Cockney knows that there is a Thatched House on St. James Street, it has nothing to justify its title but the tradition of that which it once was.

# MODERN FIRE-PROOF THATCHED ROOF

THE best straw for thatching is that of wheat or of rye, which has not been threshed and where the pipes are whole and unbruised by the flail. The straw should be combed and cleaned free from short straws, weeds and grass, and the ears cut off with a sharp sickle. The thatch should be laid not less than fourteen inches thick; in many cases eighteen inches or even twenty inches is found to be more advantageous. As a remedy against damage by fire, the straw should first be saturated in a solution of silicate of potassium soda or natrium dissolved in water. This method is both cheap and effective. Thatched roofs, owing to their absorption of rain, are very heavy, requiring stout rafters and purlins at short intervals. The accompanying sketch shows a method by which fireproof blocks can be used as a secondary preventive for the spread of fire. These blocks can be made of clay or of asbestos. Perhaps those known as book tiles, which are usually three inches thick, twelve inches wide and seventeen and a half inches long, would answer the purpose, and they can readily be secured in any section of the country. The chimneys should be high, six feet or more above the ridge if possible, the outer walls double thick and the flue carefully lined with tile. A fine wire netting at the top of the chimney in the flue is a further protection against fire. A well laid straw thatch will last thirty or forty years—some are known to be seventy years old.



CONSTRUCTING A FIRE-PROOF THATCH

The thatcher begins his work at the eaves and continues to the ridge. An interesting thatch is occasionally made by the using of fagots of birch, ash or hazel, *well dried*—this is important. The bundles should not be less than eighteen inches long and twelve inches thick. Soft tarred cord is used to secure to the lath.

# PATCH QUILTS AND PHILOSOPHY: BY ELIZABETH DAINGERFIELD

HE price of most things, in Appalachian America, is "just what you think you can afford to pay." The price of quilting is a dollar a spool. The first standard is more logical than the student of economics is ready to admit. If your crops have done well and your hogs have brought a good price, you can afford to pay more for the work I can do for you than Aunt Sudy Crofton can, whose man has been ailing all summer and whose hogs died of the cholera. I do the work for both alike, and each pays "just what you think you can afford." Quilting is different. Everybody knows just how long quilting takes, just how laborious it is, and the spool is the measure of excellence. Three spools will quilt a bedspread of ordinary size neatly, four will allow some beauty of execution. I have seen a patch quilt of eight spools—that was a generation ago, but people still talk of "the time Abby Thompson made that eight-spool Ball and Cherry patch quilt" and come from far to see it. It was worthy the admiration it excites. I have an Ostrich Feather quilt (commonly called Oyster Feather in a region where ostriches and oysters are equally rare) quilted in Hoop and Feather design with six spools, and this treasure has twelve stitches to the running inch. Measure your running stitch and see to what excellence your sister in the Cumberland Mountains, bending over the quilting frame, has attained. If my six-spool quilt has twelve stitches to the inch what must be the number in that eight-spool Ball and Cherry quilt?

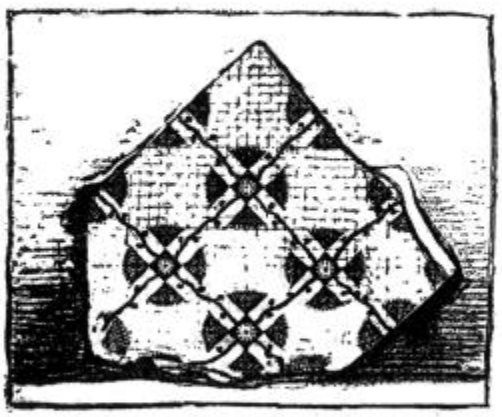
There is much beautiful and skilful handiwork hidden away in these hills. The old women still weave coverlids and towels and table linen of wool from their own sheep and flax from their own garden. The girls adorn their cotton gowns with "compass work," exact, exquisite. In some places the men and boys, girls and women make baskets of hickory, reeds and willow, to delight the heart of the collector. But from the cradle to the grave the women make quilts. The tiny girl shows you with pride the completed four-patch or eight-patch, square piled on square, which "Mammy aims to set up for her ag'inst spring." The mother tells you half jesting, half in earnest, "the young un will have several ag'inst she has a house of her own." No bride of the old country has more pride in her dower chest than the mountain bride in her pile of quilts. The old woman mumbling over her pipe will show you a stack of quilts from floor to ceiling of her cabin. One dear old soul told me she "had eighty-

four, all different, and ever' stitch, piecin', settin' up, quiltin', my own work and ne'er another finger tetched hit."

To every mountain woman her piece quilts are her daily interest, but her patch quilts are her glory. Even in these days you women of the low country know a piece quilt when you see one, and doubtless you learned to sew on a "four-patch" square. But have you among your treasure a patch quilt? The piece quilt, of course, is made of scraps, and its beauty or ugliness depends upon the material and colors that come to hand, the intricacy of the design and one's skill in executing it. I think much character building must be done while hand and eye coöperate to make, for example, a Star quilt, with its endless tiny points for fitting and joining. But a patch quilt is a more ambitious affair. For this the pattern is cut from the whole piece and appliquéd on unbleached cotton. The colors used are commonly oil red, oil green and a certain rather violent yellow, and sometimes indigo blue. These and these only are considered reliable enough for a patch quilt, which is made for the generations that come after. The making of such a quilt is a work of Oriental patience. These neighbors of mine learn patience far from our modern turmoil and opportunity,—shut in by the eternal hills, "up on Duck Fork," "down in Town Hollow," "out on Hell Creek."

PEONY PATCH QUILT DESIGN.

There are fixed quilting designs which go with certain patch patterns. An Oyster Feather, for instance, is occasionally made up with a diamond, but its approved complement is the Hoop and Feather quilting design. The large curled "feather" is not in reality a feather at all, but a conventionalized design taken bodily from the great curled dry leaves that rustle under the foot of the mountain woman as she goes to the spring, with the water bucket on one hip and the baby on the other. The Hoop and



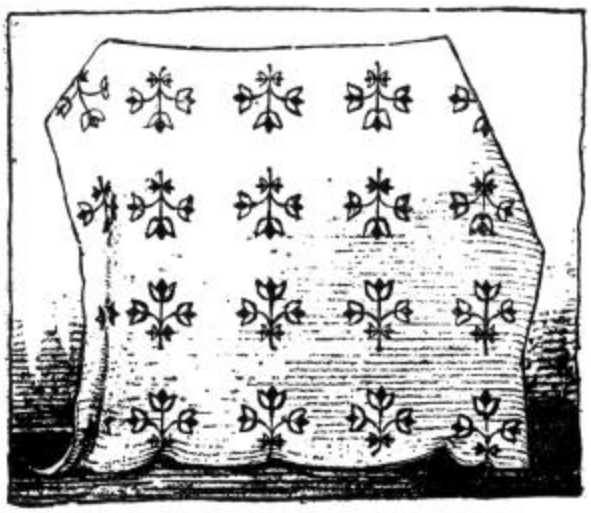
ROCKY MOUNTAIN DESIGN.

Feather quilting pattern appeals to the eye and mind for its fitness with the appliquéd design. The hoop is "drawn off" around a dinner plate and the feather is the segment of a saucer's circle. Among my treasure trove is a patch quilt whose red flowers springing from small green leaves delighted the eye that saw it in a brown-walled log cabin. "Hit hasn't got any right name," I was told. "I call hit the mountain lily. I just drew hit off from these here mountain lilies that bloom along in July. Then I had to work out the right quiltin' for hit. A body couldn't do hit in squares; Hoop and Feather don't suit a pattern that goes up and down as much as this here; diamants was better but they wasn't right. So I just made up my mind to follow the pattern ag'in in the quiltin', and I think hit does right well." The beautiful amaryllis of the mountains brought out in its own brave colors in the "patch" and repeated like a ghost flower in the quilting made an effect of which no artist need have been ashamed. I have always hated the people who called whatever they admired "a poem," but that was the word that came to me while this mountain woman told me how her mind had seized and her hands made captive the beauty of the mountain lily in the one form of expression that was her own.

Doubtless the Piney quilt—again green and red are the only colors used against the white,—was evolved in just this fashion by the grandmother of its present owner. I have never found another just like it and it has the same effect of distinction and originality, grace and spirit that mark the Mountain Lily.

The tulip pattern is usually quilted with great elaboration, as befits its somewhat complex design. The "tulips" have yellow centers, the next leaves are red and the outer ones green. The one I have is quilted with Hoop and Feather in the spaces and diamonds within diamonds in the squares on which the "tulips" are appliquéd.

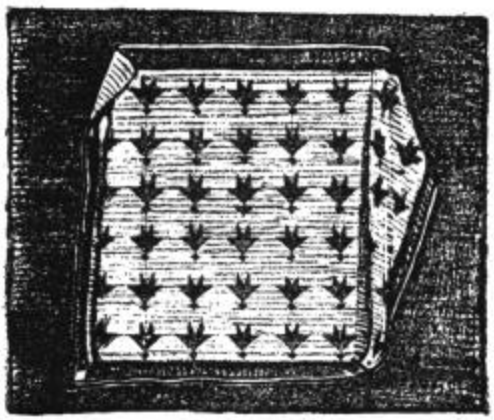
As I drew near Aunt Cynthia Steele's house one pleasant day in May, I found her at her quilting frame in the pleasant shadow of a beech tree just outside her cabin. Her daughter was busy in the



MOUNTAIN LILY DESIGN.

house and Aunt Cynthia was surrounded by the grandchildren, happy in the early sunshine. The little girl played housekeeping with corncob dolls and acorn cups and saucers. The four-year-old boy tousled a pup in the sunshine and the baby rolled contentedly on an old quilt near Aunt Cynthy's feet. The old lady's mind was at rest, though her hands were busy, and I found her hospitable, as always, and more than usually ready to talk. When I give, as nearly as I may, the form of my dear neighbor's speech, I take you into my confidence, sure that you will not misunderstand. I trust I know my Shakespeare too well to think that the quaint words that fall so pleasantly on the ear in this hill country are corruptions.

"I'm proud to see you," said Aunt Cynthy. "Go in, ef you can get in for the children, or ef you are willin', we can talk right hyar. I couldn't miss the first good quiltin' weather this spring. All winter I piece and patch, me and the gals, and when pretty weather comes I set up my frame right hyar under this beech tree. I'd rather piece as eat, and I'd rather patch as piece, but I take natcherally delight in quiltin'. I'm an old woman, honey, and I tell ye, a woman can do her work better ef she has something pretty to her hand to take up whenst she air plumb worried out. Whenst I war a new-married woman with the children



THE FLOWER POT DESIGN.

round my feet, hit 'peared like I'd git so wearied I couldn't take delight in nothing; and I'd git ill to my man and the children, and what do you reckon I done them times? I just put down the breeches I was patchin' and tuk out my quilt squar'. Hit wuz better than prayin', child, hit wuz reason.

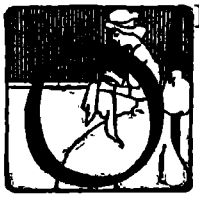
"I don't reckon you want to see my quilts, do you? I reckon you've seen a sight better, but they are always new to me. Thar's hist'ry in 'em, and memory. Now, this Swarm o' Bees,—I made that when my man and me were a-talking." (*i. e.* courting,—see King Lear.) "Thar's right smart of this speckled pink in hit, see. I put hit in because Tom 'lowed I looked mighty pretty when I wore hit. A body's foolish, child.

"I always liked this here Flower Basket. I made hit when Jack war the baby. He had a little green dress like this here base, and Tom and me 'lowed he looked so sweet in that dress that I put ever' bit an' grain I could cut out of it in this here Flower Basket. We buried Jack thirty-five year ago, but I can see him, crawlin' into ever'thing and always a-laughin' so a body couldn't scold him, as plain as the day I begun to make this quilt. Here's my Radical Rose. I reckon you've heared I was the first human that ever put black in a Radical Rose. Thar hit is, right plumb in the middle. Well, whenever you see black in a Radical Rose you can know hit war made atter the second year of the war. Hit was this way, ever' man war a-talkin' about the Radicals and all the women tuk to makin' Radical Roses. One day I got to studyin' that thar ought to be some black in that thar pattern, sense half the trouble was to free the niggers and hit didn't look fair to leave them out. And from that day to this thar's been black in ever' Radical Rose.

"This here Rocky Mountain I made atter Belle's man went out West and couldn't stay away. But atter he come back he talked a mighty sight about the Rocky Mountains and about the way the sun come up over them mountains in jagged peaks, like he said, 'Thar's the sun, and thar's the road a-trailin' back.' Lor,' no, I didn't draw hit off out of my head, I reckon hit war made before my time, but I made mine to remember Loge's goin' and comin'. Thar's one quilt here my grandmother made. Hit's the Wilderness Road and I've got it in my head that she made hit up herself, because I know she rid to Kentucky horseback behind her man over the Wilderness Road.

"A body can take comfort in layin' herself out on the quiltin' of a patch quilt. Hit's somethin' to show whenst you are gone."

# WHAT OUR CITIES ARE DOING FOR THEIR CHILDREN: BY GEORGE ETHELBERT WALSH



NE of the most urgent problems the modern city has to face is the need of making such provision for its children that they will develop morally and physically into good citizens. A "childless city" is an inconceivable proposition; yet, if we are to accept the conclusions of some writers, the little ones are not wanted and their presence in the streets constitutes a public nuisance. But no one can quite imagine "race suicide" carried to the extent of totally eliminating all the boys and girls from our cities, so must a solution of the problem gradually work itself out.

In New York especially, the "race suicide" question is of secondary importance to the problem of what to do with the children already with us. A picture of a crowded street in the tenement districts is illuminative. In the foreground and background there are children —babes in the arms of mothers, boys and girls playing in the middle of the street, mischievous urchins climbing fire-escapes or fighting among themselves, half-grown children lazily gossiping or hanging around the corner saloons, all trying to find some outlet for their animal spirits. The middle of the street in some sections is so crowded by children at play that it is almost impossible for a wagon to thread its way through them safely at any speed greater than two or three miles an hour. The toot of an automobile horn is a signal for a general rush for the sidewalks, accompanied by pushing and shoving that endangers the lives of the smaller ones. Through some of these crowded thoroughfares run street car lines, and it is manifestly not so much the carelessness of motormen as it is the fault of present congested conditions that an annual toll of many innocent lives is exacted by our street railway companies.

In summer the condition of the tenement children is rendered almost unbearable. The sultry temperature drives them from stuffy tenements, and the hot pavements scorch and hurt them. They attempt to play a little in the shadow of the brick walls of their home in the early morning and late afternoon hours, but at midday they become languid and slothful. At night they seek the roofs and fire-escapes where they may catch a little of the passing breeze, and through the torture of it all they slumber fitfully until the dawn of another day repeats the story.

The city owes certain debts to the children which are just beginning to be realized. They are not intellectual debts, but physical and moral. The physical debt has been contracted through the

artificial environment imposed upon the children. The cities have attempted to rob them of their birthright of free and independent expression of their physical natures. They have taken away their playgrounds, their fields and woods, their trout and fishing streams, their very dooryards. The result has been that the children have degenerated morally and physically, and the citizens of the future must suffer as a consequence. The work of restoring these natural rights to the city children must develop through years of planning and farsighted policies, and the children mutely demand it. It was no choosing of theirs that they were brought into the world between brick walls and hot pavements.

CHILDREN, to retain their physical, moral and mental balance, must have breathing and exercising space and a normal development of all their faculties through association with natural conditions. This is the problem which many cities are seeking to solve. Compulsory physical exercise does not always produce the desired results. The physical training in public schools for this reason falls far short of the ideal. The children find no pleasure in it, for to make pleasure out of exercise the imagination must be stimulated. This is best accomplished in games, and outdoor games under congenial surroundings are always the most productive of good.

Taking all the factors together it is the city's duty to provide open air playgrounds for its children, workshops for the development of their creative instincts, farms and gardens for the healthful exercise in the cultivation of new life, and places of amusement, such as indoor gymnasiums, bowling alleys and swimming pools for recreation in winter. These are the things which the normal country child has provided for him by the very nature of his environment, and the city has robbed its children of them through artificial conditions, and these are the things that must be restored if the children of the cities are to produce types of future citizens the nation needs.

New York is facing the problem acutely. Chicago is only a little better off, and the other large cities are treading the same thorn-strewn road. The park systems are being extended at a great expenditure of public money, and these breathing spaces are being more and more used for the children. Not many years ago the parks of New York City were beautiful places to look at and pleasant strolling grounds, but they were not in any sense of the word playgrounds. Today they are turned over to thousands of children for open-air recreation. Any day in spring, summer and fall, tennis,

baseball, cricket, lacrosse and other games are in progress in Central, Van Cortland, Riverside and other municipal parks. The old sign, "keep off the grass," is rapidly disappearing. The city is partly atoning for its past neglect of the children by opening the parks for their unalloyed pleasure. The change has in no way injured the parks, but rather has increased their value by making them useful as well as ornamental. In the boroughs of Bronx and Queens provision is being made to accommodate the vast army of children who in the near future will people the outlying districts. New York is spending millions for its parks where a few years ago it spent thousands. It is true that these expenditures are made only indirectly in the interest of the children, but whether they have this purpose distinctly in view or not they must prove a blessing for future generations of boys and girls.

The small parks in the congested districts of the city are of more importance in the solution of the city-child problem than the larger playgrounds in the outlying districts. The few additional "breathing places" on the East Side of New York where open air gymnasiums are established have proved a great boon to the little ones. The river front parks, with their free swimming and bathing houses, have cost the city millions of dollars in the past ten years, but they no more than represent a part of the debt the city owes its children. The contemplated extension of these parks and swimming piers includes also more recreation piers. Indeed, the need of the city is for sufficient recreation piers, river front parks and swimming places to accommodate the whole population of boys and girls. Within the next ten years many more millions of dollars will be expended in this direction.

CHICAGO has had similar experiences with her small parks and recreation centers. The attempt made in that city to provide within the city limits a comprehensive system of small places for the recreation of the poor is the most costly yet undertaken by any municipality. The fourteen recreation centers have already cost Chicago seven million dollars and from twenty-five to thirty thousand dollars annually to maintain each one. In these playgrounds there are clubhouses, gymnasiums, baths and athletic grounds. The attendance on all pleasant days has been so large that the city authorities feel that the money has been wisely invested. The extension of this system of outdoor recreation centers for children is now being considered, and as fast as the money is appropriated new small parks

will be opened and equipped. Chicago is better prepared to cope with such an experiment than New York, for it has no such narrow congested section as the lower East Side of the metropolis, and the cost of land for park purposes in the poorer quarters is much less.

The question of establishing outdoor recreation centers in the older parts of New York is one that involves an immense outlay of funds, and the solution of the problem must be reached in other ways. One that has been suggested is to utilize the roofs for playgrounds. Half a dozen schools have playgrounds on their roofs, and many commercial buildings have roof gardens and gymnasiums where young and old can play at games at the noon hour. But to make this innovation of real value to the children of our cities the roof playgrounds would have to be planned on a comprehensive scale. At present there are many acres of flat roofs which are wasted. The construction of extensive systems of playgrounds on these by the city would relieve the congestion in the streets below and make the mortality among children far less than it is today. No city has yet made any extensive attempt to utilize the roof space for park purposes and playgrounds, but New York is reaching the point where it must look for more space either above the ground or below. It is not likely that the children's playgrounds will be placed underground and the only other place left is above on the city's roof.

Architects no longer leave out of consideration the question of utilizing the flat roofs, and many of the new buildings designed have model roof gymnasiums and gardens. Some of the model tenements are provided with similar equipments where the occupants can safely turn their children loose to play. A number of new plans of model tenements now under consideration will emphasize the use of the roofs for recreation centers more than ever. These contemplate the building of complete outdoor gymnasiums, gardens and playgrounds for the younger children, including trees and plants, all surrounded by a high wall to prevent accidents. In the summer time these roof gardens of the tenements could be utilized for sleeping purposes, and it is proposed to erect poles thereon so that several tiers of hammocks can swing to the cool breeze. The importance given to the value of outdoor sleeping for consumptives and others suffering from pulmonary ills has led to the consideration of such improvements in the tenements. It is one of the surest methods of combating the "white plague" now so threatening to the densely crowded tenement people.

One of the greatest needs of boys and girls in our cities is the opportunity to cultivate the soil and learn the secrets of nature's

growth and development. The work of making flowers and plants grow has long been recognized as having great influence in awakening dormant faculties in the child's mind. The country boy is brought up under such environment that he learns from infancy secrets of nature which the city boy of the tenements may never understand. Years ago the present movement to bring nature closer into the lives of the poor children was started by encouraging the growth of flowers in pots and boxes. On a summer's day one may see the window sills of the poorest tenement houses decorated with flowers and green plants. The fidelity with which some of the poor will tend their few plants indicates their appreciation of even such glimpses of nature. Following this cultivation of plants in the tenements, the public school authorities took up the question of teaching students in the schools the art of flower and plant cultivation from seeds. Some of the schools have excellent gardens in their windows where the children daily get practical illustrations of how nature increases her species year after year.

But this has not been enough, and the school garden has been evolved from the few indoor attempts at window gardening. The school garden has flourished in Boston, Philadelphia, Chicago, St. Louis, Cleveland and many other towns and cities. The first school garden was started seven years ago under the auspices of the Boston Normal School. Today there are a dozen such gardens in Boston and the suburbs where boys and girls have the opportunity to do manual work and learn real gardening and farming. The school garden as a factor in village improvement has spread throughout the land, and scores of small towns and villages have established such gardens for their children. At first these gardens were used only during the warm seasons of the year, but now they are kept open from frost to frost and in a few instances attempts have been made to roof over a part of the land with glass, and carry on operations through some of the cold months.

The establishment of such gardens by the different cities is no longer in the experimental stage. Their value has been fully demonstrated, and the cities owe it to the children to make such provisions for their welfare. Topography here as in many other respects is an important factor. New York is more hampered in this respect than most cities, but school gardens planned for the boroughs of the Bronx, Richmond and Queens mark the spread of the idea. More and more will the boy of New York and other large cities have the opportunity to "garden" and "farm" his small place even though it is

only a few feet square. There are many waste places and empty fields close to the densely populated districts of the cities which could be utilized temporarily for such school gardens and the movement is gaining headway to induce the cities to preëmpt these for the children.

A number of cities have entered more or less tentatively into the work of establishing summer camps for the children within their boundaries. The Fresh Air Fund, which has done such noble work in the past, is not sufficient for the future. It would prove less costly in the end for the cities to acquire wild land within a reasonable distance and establish summer camps for the children where they could spend weeks and months living in tents and out of doors. These summer camps under the control of proper men and women would prove valuable beyond any present estimation. The land could be obtained at a nominal cost and the city could send its charges there every summer, especially the sick and weak. Camping, farming and playing in the fresh air would within a few short months transform many an undersized and backward child.

These summer camps should multiply in the future as rapidly as parks and recreation centers have in the past. With them will come gardens and workshops. It is estimated by philanthropists who have studied the question that such farms and workshops could within a few years be made almost self-supporting. The handling of tools is a necessary part of every boy's education and instead of compulsory work in the shops it should be made selective.

The duty of our cities has not been thoroughly appreciated in the past, but the boys of the future will have a better time of it than those of the past or even of the present. In return for the immense sums expended in their interest the cities will get better and stronger children. The average type of citizenship will be raised. The moral influence will be almost as great as the physical, and this will affect our percentage of crime. There will be less need to increase our cost of police protection at the present rapid rate and our asylums and hospitals will not be filled so steadily with the wrecks of humanity. The normal child is a strong, healthy animal, physically as well as morally, and anything which robs him of this birthright must be abolished or its influence counteracted. We cannot abolish the city, but we can modify its environments so that it will less systematically and persistently destroy the little ones.


# A SMALL BUNGALOW WORTH STUDYING

ABOUT three and a half miles from Pasadena is located a bungalow, here illustrated, designed and built by Mr. Louis B. Easton for Mr. C. C. Curtis. The house 44 feet x 32 feet, and barn 20 feet by 80 feet, together form a ranch house, and the barn, built in the form of an "L," makes a court at the back and adds mass to the combined structure. At the rear, and within easy view, stands Mt. Lowe with its observatory, and running down the mountain the inclined road of the Pacific Electric. The house has the lines of the old Mexican buildings of adobe, but differs from them in construction, being built of boards running up and down and heavily battened. Such a bungalow, carefully built, would be entirely practical for an all-the-year-round home in California, and, where one wishes to live the simple life, is much better adapted to winter use in this locality than the regulation small house.

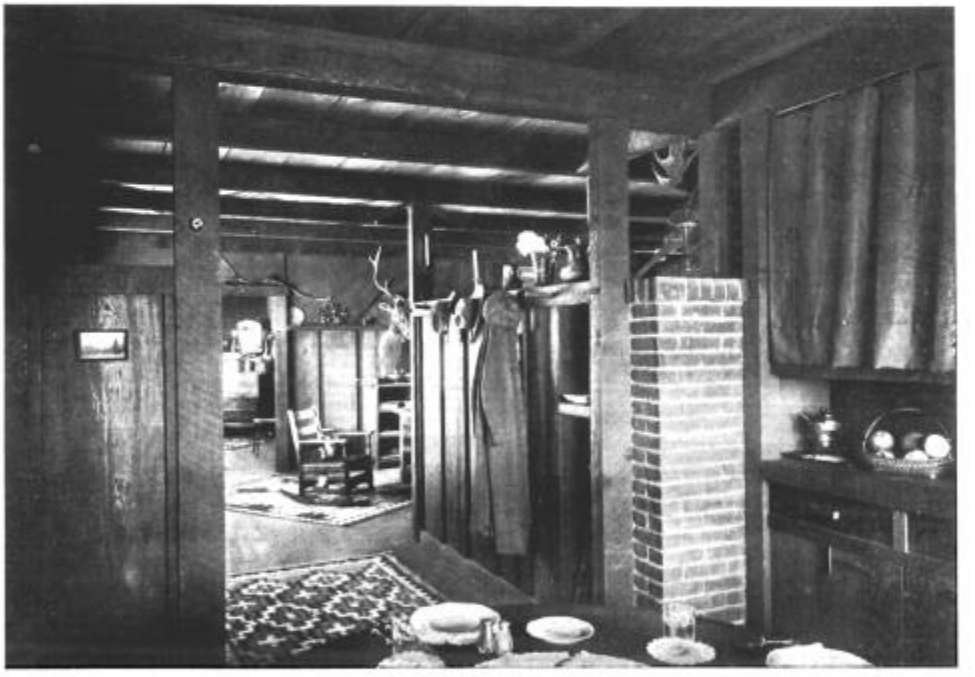
The central living room, 20 feet x 23 feet, has a big fireplace with a high settle at one side, which serves a double purpose. The back of this settle faces the entrance door, thus helping to form a vestibule and making a convenient place for hanging wraps and coats, while at the same time it shelters the fireplace from the wind.

At the opposite side of the fireplace is a built-in bookcase nine feet in length, beyond which are a desk and typewriter desk, furnished with a long bench upon which, when at work, one may easily move from one to the other. A couple of magazine racks, a rough table and a few chairs complete the furnishings of this room. In the dining room are a built-in buffet, a round table and old splint chairs, which lend an air of homely comfort and cheer.

All lumber throughout the house is of rough redwood, smoothed with a steel brush. The ceilings are of 14-inch boards battened on the upper side, and these, as well as the boarding on the outside of the buildings, are the color of weathered driftwood. Beams and trim are finished in a dark brown tone, with which the burlap above the wainscot is in harmony.

Provision is made for hot and cold water, the plumbing is much better than that which is provided in the usual five-room house, and under all is a good cellar.

Facing west, the house fronts on a beautiful lawn, with a young orchard at the north and a rose garden at the south. The bungalow as a whole seems simply to have found lodgment at the foot of a great mountain, where it makes no pretense beyond that of offering shelter and comfort.



*See page 534*

A BUNGALOW NEAR PASADENA DESIGNED BY LOUIS B. EASTON, WHICH HAS THE LINES OF THE OLD MISSION HOUSE, THOUGH BUILT OF BOARDS.

LOOKING FROM DINING ROOM THROUGH SITTING ROOM TO BEDROOM, SHOWING INTERESTING INTERIOR CONSTRUCTION.

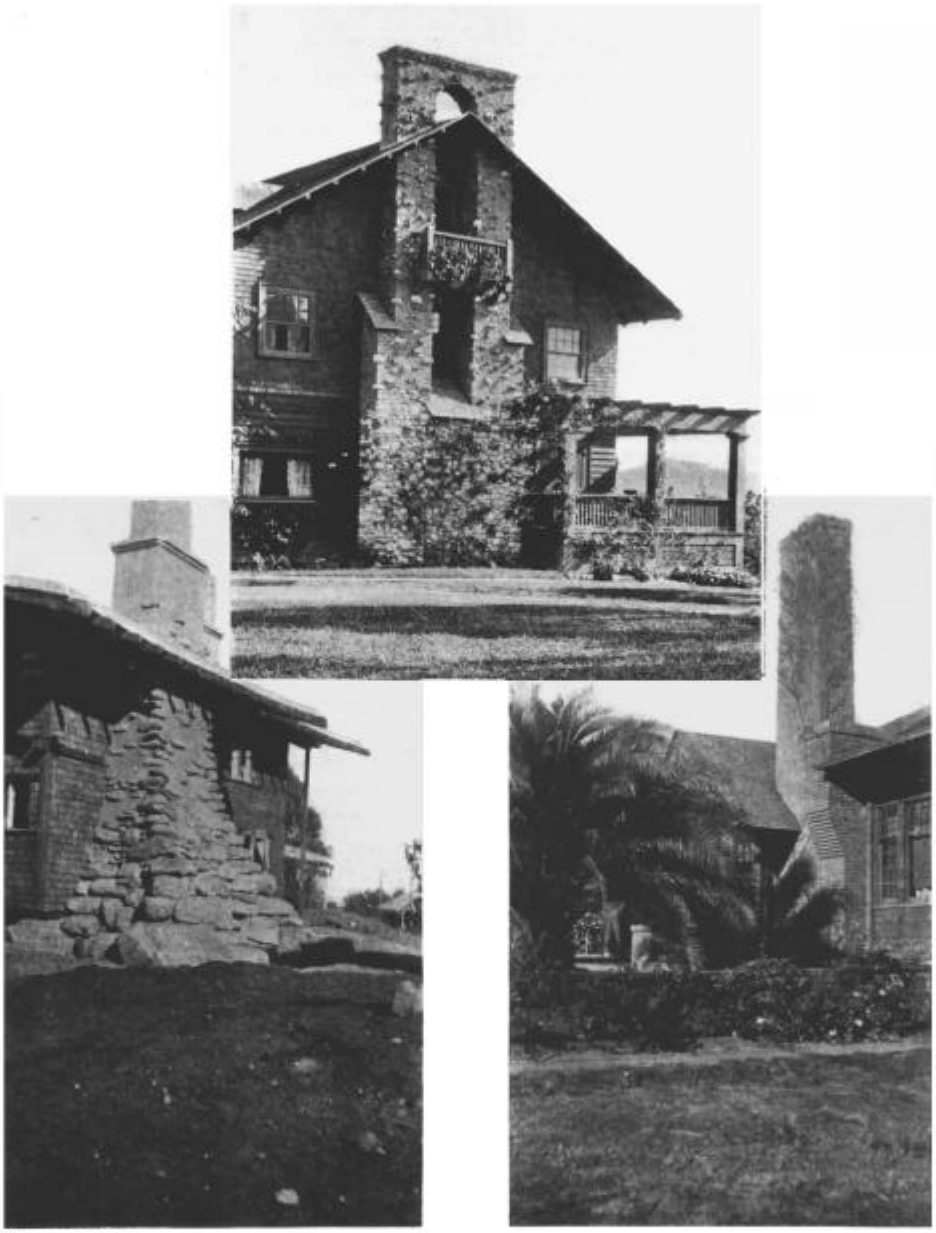
*See page 534*

VIEW OF SITTING ROOM IN BUNGALOW DESIGNED FOR MR. C. C. CURTIS.

*See page 589.*

A COBBLESTONE CHIMNEY IN THE FRONT OF A RED WOOD HOUSE: PERGOLA SUPPORTS ALSO OF COBBLESTONE.

TWIN CHIMNEYS BUILT OF BOULDERS, COBBLESTONES AND ARCH BRICK, GIVING AN IMPRESSION OF STRENGTH AND RUGGEDNESS.



*See page 539.*

THREE HOUSES SHOWING THE DECORATIVE POSSIBILITIES OF RUGGED CHIMNEYS.

# MODERN CHIMNEYS THAT ARE DECORATIVE AS WELL AS USEFUL

THERE is, perhaps, no one of the external structural features of a house which can so add to or detract from its quality of individuality as the chimney. This fact is now being recognized to such an extent that the modern chimney has become much more than "a funnel for the creation of draughts to carry off smoke and other offensive products." It is true that the first requisite of a chimney is the possession of the essential quality that, according to Pope, distinguished the chimneys of Marlborough House, which were "so well designed they never smoked in any wind," but nowadays the possession of this strictly utilitarian quality is almost a matter of course. The modern architect goes farther and uses his chimneys also as distinctly decorative features in the general plan of the house.

With this end in view the plain brick chimney of a few years ago is becoming more and more rare. Undoubtedly, that chimney "drew" as well as the picturesque modern construction, but it certainly added little to the beauty of the house. In the revolt from its prosaic ugliness many really beautiful chimneys have been built, but like other revolts, it is frequently carried too far, often producing bizarre effects that are more distinguished for originality than for fitness. The examples reproduced here, however, seem to have attained the object for which the best modern builders strive,—that of connecting a house with its surroundings by providing some one central feature that shall be akin both to the material used in the building and to the soil upon which it stands.

The materials used in these chimneys are boulders, cobblestones, cement and arch brick. The last, which is really the over-burned brick that comes from the arch in the top of the kiln, has only recently come into popularity. It used to be discarded as worthless and could be had for the asking, but some architect who had the courage of his convictions found that this brick is the most effective that can be had for building chimneys, as its coloring shows a number of shades,—varying from rich dark red to a shade just off the black,—which combine well with most of the tones used in staining exterior woodwork. Although the vogue for it has brought up the price of arch brick, in many parts of the country it may still be bought for almost nothing and at the utmost it costs no more than ordinary pressed brick. It combines well with stone, especially the small lichen-covered cobblestones which are frequently scattered through the brick, giving an irregularity that is sometimes very attractive.

The first illustration shows a single large cobblestone chimney in the front of a redwood house planned somewhat like a bungalow. The wood is darkened to a rich brown tone and the roof is white, and the varying colors of the stones used in the chimney range throughout the whole gamut of shades between. The ruggedness of effect accords well with the rugged construction of the porch and pergola, which are made of rough beams used just as they came from the mill, and the use of stone is repeated in the lower part of the porch pillars, which serve as bases for the square upright beams that support the roof of the porch. In many cases cobblestone is improperly used, for the reason that it is combined with the daintiness of effect given by slender forms and wood that is smooth surfaced and delicately tinted. But here the character of the stone-work accords so well with the character of the building that the chimney and pillars form

really the distinguishing feature of the whole house.

The second house illustrated is built around a *patio,* Spanish fashion, and the two front gables show twin chimneys built of a combination of boulders, cobblestones and arch brick, and exceedingly decorative in effect, especially as the structural idea is repeated in the two heavy square pillars at the entrance to the inner court. The house is one of those low-walled massively constructed cement or plaster houses so commonly seen in Southern California, with roofs of red tile. The plaster is given a tone of warm pinkish cream, and the woodwork of redwood has a deep reddish-brown tone that harmonizes well with the color of the plaster and the red of the tiled roof. The materials used in the chimneys and pillars repeat all these varying shades, and give just the needed touch of irregularity to the lines of the house. The idea of strength and ruggedness is excellently carried out in the shape of the chimneys, which are much broader at the bottom than they are at the top and suggest the natural piling of large and small stones and brick.

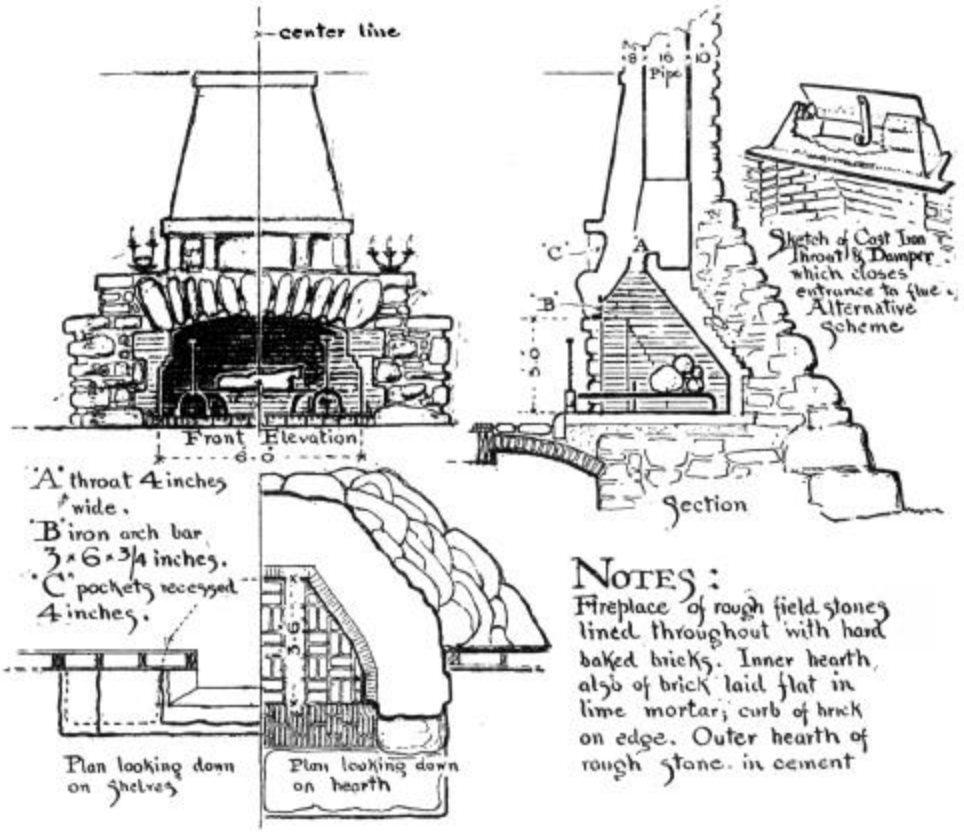
Another chimney that has the effect of naturally piled stones is seen on the lower left-hand corner of page 538. In addition to the flare that gives the appearance of massive strength and solidity, this chimney has the additional interest of accommodating itself at the base to the natural slope of the hill, which drops unevenly away from the wall of the house. In this case the boulders are combined with plaster on a brick foundation and the cap above is of cement. The stones are piled solidly at the bottom and become scattered in the upper part, seeming to crop out irregularly from the plaster.

An unusual chimney and one that is very satisfying when considered as a decorative structural feature is that shown in the topmost picture of the second group of illustrations. It is almost the only decorative feature of a large, square and otherwise very plain house, and is built of boulders, cobblestones and arch brick with the different divisions marked by little sloping roofs. The lower part of the chimney, which is solid, is built almost entirely of stone, but above the first floor it divides into two chimneys built of brick with only an occasional outcropping cobblestone. The two run up above the roof, where they join again in an arch below the broad cap. The division between the two parts of the chimney is made wide enough to accommodate a window on the second floor and another in the attic, and the little balcony that leads from this adds the last touch of quaintness to this picturesque chimney. Vines clambering all over the stones below and hanging from the balcony above lend an indescribable touch of grace and charm to the rugged outlines.

The last chimney shown stands in a nook of the building so that it has the effect of being partly hidden. This chimney makes no attempt at ruggedness, being built of smooth pressed brick and showing graceful but severely plain lines. Its chief beauty lies in its admirable proportions with relation to the roofs below; also it was a happy thought of the owner to clothe the plain surfaces of brick with a mantel of ivy that relieves the surface and softens every line.

It is a definite gratification to have one's home fit, without apparent forethought, into its surroundings; to give it the appearance of having happened in nature's own way. The chimney, more emphatically than any other feature of the house, gives this impression and if one has the good fortune to have it laid up with stones found on the building lot, it is sure to be satisfying both in color and texture.

# BUILDING A DECORATIVE CHIMNEY




THE unusual construction of one of the cobblestone chimneys shown on page 538 has led us to devise some means by which the open fire and the mantel and the use of natural stone shall become appropriate decorative elements.

The drawings show the measurements of every important item. Attention should, however, be given to the hardness of the bricks, particularly where they overhang, forming the dome-like shape of the fireplace. Great attention also must be given to the relative proportion of the opening and the flue, as its inches are of great moment. This is not easy for anyone but a skilled mason. That part of the fireplace which comes in direct contact with the heat and the flame must be of brick. The brick may be tailed into the stone work, in most cases this stiffens the construction,—but on no account must the stone be allowed to run into the fireplace proper. Stone will not stand the fire. Brick loves it. The paving bricks of Ohio and Illinois with their slightly rounded edge and wonderful heat resisting texture are of the greatest value to builders. The joints should be wide and the mortar of lime uncolored.

# DESIGN IN THEORY AND PRACTICE: A SERIES OF LESSONS: BY ERNEST A. BATCHELDER: NUMBER XI

"It does not follow, even when our minds . . . . are stored with the terms and the motives of Design, that we shall produce anything important or remarkable. Important work comes only from important people. What we accomplish, at best, is merely the measure and expression of our own personalities."

*—Denman Ross.*

AS the concluding article of this series will be given to color, it is well at this time to direct attention to a few general points, some of which have been emphasized during the year. It will be understood that a few typical problems only have been chosen to indicate a gradual development from simple beginnings to more complex questions. The step from one problem to another represents merely a new version under slightly varying conditions of the same elementary ideas. Each art rests upon principles peculiar to itself, inherent within the tools, materials and constructive processes involved. The principles peculiar to one art are not necessarily applicable to another art. But somewhere beneath them all are questions common to them all. We sometimes speak of the principles of architecture, as applied to the designing of—a book cover, for instance. The statement is misleading. The principles peculiar to architecture are not applicable to the designing of a book cover. Architecture is an art of wood, stone, brick, concrete, iron, developed through the acceptance of conditions that have given us types as widely divergent as the Parthenon, a California bungalow and a Chinese pagoda. If there is any relation between an architectural composition and a book-cover design, it must be sought in principles that are common to both, in abstract questions that belong to one quite as much as to the other. There is no infallible criterion by which beauty can be measured; and there will be an inevitable disagreement as to a definition of the most essential of the elementary principles. But if we eliminate the questions that are peculiar to each art in an effort to define principles that are common to the practice of many arts, we shall find our discussions centering about the composition of lines, forms and tones. Something, at any rate, has been done if we can find through practice that there is some common principle shared by the work of the primitive basket maker, the textile of the mediæval weaver, and the carving of the Japanese artisan,—that the product of each is an interpretation under different conditions and influences of the same principles of composition. The things that count for beauty in the vigorous expression of the primitive weaver occur again in the work of the Orient—but infinitely more subtle and refined.

We have always to accept with a grain of doubt the judgment of an individual when applied to the critical study of design. His opinion will probably be toned by his own practice and experience. We have likewise to question our own free choice. The things that appeal to us with most force may, indeed, narrow our judgment when applied to a broader field of criticism. Nor can we accept without reserve the general verdict of our day. There was a time when the best architects of England were building classic temples for use as town halls,—when Gothic was a term of derision. Even now there are those who profess to find neither interest nor beauty in the art of Old Japan. There would seem to be, however, at the present time a bright hope for a

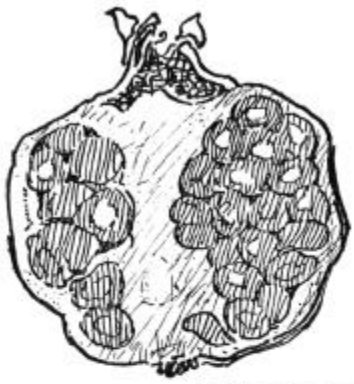


FIGURE SEVENTY-ONE.

real, vital, twentieth century art. Every demand for sound construction and simple, honest beauty in the things that we gather about us in daily life is a long step in the right direction.

It is very likely that there is no particular merit in any system or method for teaching design. In fact, the very term design implies a wide margin of freedom for individual thought and action. Work that is helpful to one pupil may not be adapted to the best interests of another. Soil in which a rose will thrive may not be suitable for a lily. The personal influence of a teacher is bound to be stronger than any system that he may devise. He must be much broader than any theory that he applies, must be able to recognize and encourage the merit in ideas that run counter to his own. No teacher can equip a pupil with an imagination, no system or theory can take the place of an unique personality.

The value of working from the whole to the parts has been often emphasized. It is the final and logical method. A design, for whatever purpose, should be felt out, gradually developed from a few tentative lines to the completed result. With the blocking in of the first idea the designer should be alive to any change that suggests itself; he should be able to recognize and seize upon any variation that will lend additional interest or beauty to his work. His final choice may be far removed from his first thought. It is better to be able to adapt oneself to a new version of an idea that may develop with the process than to stubbornly push a first thought past all suggestions that may appear. The first tentative lines may give way to an entirely different adjustment as

FIGURE SEVENTY-TWO.

the design progresses. Many sketches may be necessary, roughly blocking in the idea, before a choice of one for fur-

FIGURE SEVENTY-THREE.

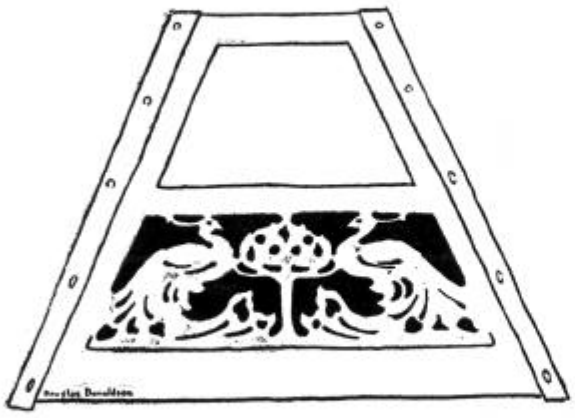


FIGURE SEVENTY-FOUR.

ther development is made. There should be throughout the process a measure of elasticity; but in the end a clear and unmistakable statement.

The intent of a design should be clear; if it lacks interest there is still hope through continued practice. An inarticulate, mumbled product is no more creditable in a design than in speech. A design is thought expressed in terms of line, form and tone, because, perforce, it cannot be expressed in any other way. If the designer's thought is not clear to himself he surely cannot hope to make it clear to others, and cannot expect others to interest themselves in a disorderly, mumbled result. A clear statement of an inferior idea is preferable to a vague, indefinite design that has to be reinforced by verbal explanations. An unexplained product is a fair index to a designer's thinking powers. If you feel that you have fine ideas, but that you are unable to give them adequate expression in terms of design,—try something else; nature never intended that you should be a designer. It is safe to assert that nature seldom endows a man with brilliant ideas without furnishing him some means for expressing them with clearness.

It is always important to know when enough has been said in a design, to know where to stop. A logical construction is often more beautiful without enrichment than with it. The simple charm of a vast amount of good material is often lost through a mistaken idea that beauty is a question of enrichment alone, the more lavish the enrichment the more beautiful the product. Brick, stone, wood, iron, glass, they are all beautiful when properly treated, and any enrichment that robs them of their true character must be looked upon as a design of doubtful value.

A thoroughly competent craftsman—that is to say, a man who has thoughts that are worth while in design, and who possesses the skill to execute his designs in a workmanlike way—does not necessarily require an accurately detailed drawing on paper. Such workmen, alas! are rare. A rough sketch on paper may serve to define his thought; but this sketch is made on a basis of hard-earned experience. To him it is a significant symbol, a shorthand note, a mere means to an end. He may well prefer to dispense with even this first aid and block in his design directly on the material in which it is to be exe-

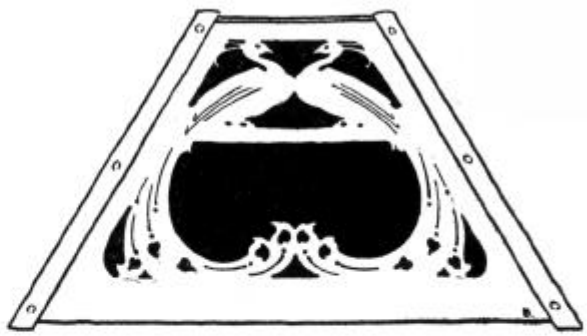


FIGURE SEVENTY-FIVE.

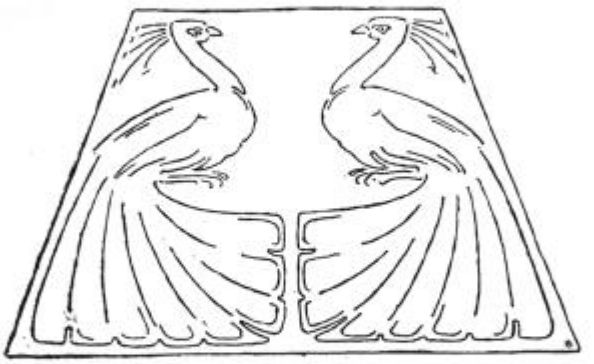


FIGURE SEVENTY-SIX.

cuted. The primitive worker needs no paper design to guide him. The mediæval craftsman seldom required one. The Japanese ivory carver sits at his bench without any preliminary sketch to refer to. Any study of the history of design is incomplete unless one has given careful study to methods of production. And any study along this line would seem to indicate the futility of trying to teach designing through a paper product on a basis of theoretic knowledge or book learned information as to tools, materials and processes. We may hope to define elementary principles on paper, to appreciate and express an abstract beauty of line, form and tone, to stimulate, in some measure, the imagination, to learn the value of clear and orderly thought; but if we wish to go beyond this abstract expression let it be on a basis of practical experience in constructive work. With an experience that gives one command over the tools and materials of a craft, the lessons learned through the solution of abstract problems may be given a real and vital application. The two should go hand in hand in order that there may be an immediate and effective correlation between them. Of one thing you may be sure: if you can impart character and interest to the lines and forms employed in the definition of elementary principles under the comparatively simple limitations of abstract design, you will find that much has been done to clarify your ideas when

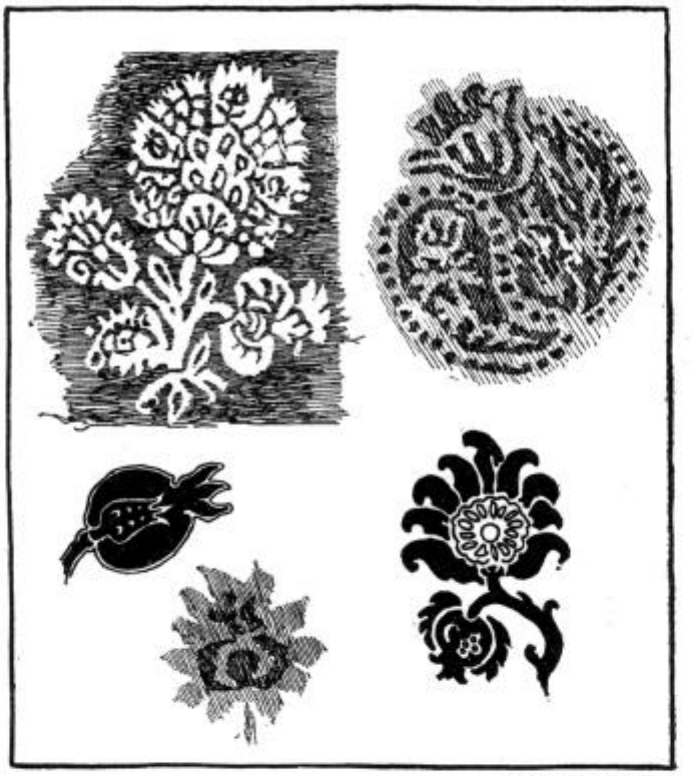


PLATE SIXTY-FIVE.

PLATE SIXTY-SIX.

you attempt to speak through constructive work. The underlying principles of composition are not essentially different whether we weave an idea into cloth, beat it into metal, or carve it in wood.

We have seen that nature may enter into a design in various ways: We may start with an abstract symbol of imaginative origin, giving to the result a character suggested by natural growth or form. We may find in nature material for direct conventionalization, though the process may lead us so far back toward the geometric that the original source of the motif is lost from sight. We may find in the analysis of some particular form from nature material for our purpose, as for instance in Plate 65. In the first example the designer broke his large measure of light into smaller measures suggestive of a clue derived from the cross section of a fruit. In the second example, a pomegranate, we may be reasonably sure that a section of the fruit furnished the suggestion for a breaking of the large measure. In Fig. 71 is a pen sketch from a section of the pomegranate. The contrast between the rich red seed masses and the creamy core of the fruit is strikingly beautiful. Incidentally, one wonders if the so-called "pear motif" of the Persian designers was not suggested by a section of this fruit so common to the land.

There are a number of different ways then in which nature may be of assistance. But when you first go to nature, let it be as a test of your ability to think in terms of design. Question your own inventive skill; ask yourself what it is that will give character and distinction to your design regardless of the beauty of your natural prototype. Choose a simple motif and set yourself the problem of imparting as much beauty to your design as is possible. There is no need to start a frantic search for something to adapt or conventionalize. There is scarcely a thing on the face of the earth that is not adapted either in whole or in part to purposes of design. Through the whole realm of nature, from the crystal to the human form, the designer may choose as he will. And if he has any imaginative force or inventive skill he may likely as not find ample material for his purpose in the first weed that is plucked by his

PLATE SIXTY-SEVEN.

PLATE SIXTY-EIGHT.

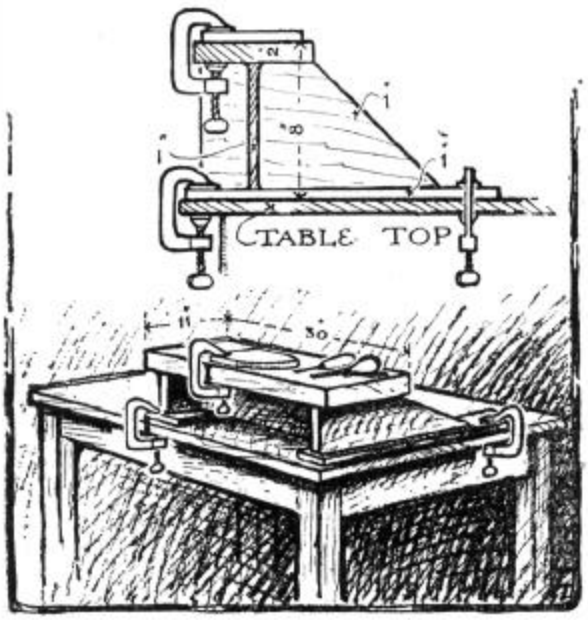
back door-step. Nature is ever at hand to offer suggestion and help in the combination of lines, forms and tones, providing you are equipped with thinking powers for yourself.

PROBLEM:—As a final test of an ability to approach nature from a design point of view let us choose a motif from animate life and adapt it to forms of different shapes and measures, such as a circle, rectangle and triangle. The peacock suggests itself as peculiarly appropriate for such a problem. With a wide range of practice a solution of the problem may lead one to a close adherence to the natural character of the motif or far back, into the geometric. In Figs. 72 and 73 are two examples not far removed from the problem of the May CRAFTSMAN. In the former, the interest is largely in the relation of lines to each other and to the enclosing figure. In the latter, the breaking of black and white areas is of chief interest, with a strong, dominant movement of all the elements within the circle. Plate 66 is our little problem of the fishes all over again with a few additional difficulties. It is a balanced distribution of these values in which the lines and forms are related in a common movement. In Figs. 74 and 75 are two constructive applications of the motifs. Here our abstract problems join once more with questions of utility, tools and materials, and it may be found that the relation between them is, after all, very close; practice in the former has not been without value to the latter. A lamp shade has to be seen in the daytime with the light shining upon it as well as at night with the light shining through it. With this condition in mind one must give thought both to the space and mass arrangement that will be most effective when the lamp is lighted and to the composition of lines, forms and tones that will be attractive in daylight hours. Plate 67 is a lamp of this character. In Fig. 76 is another peacock design intended as a slight enrichment to a constructive problem. That it shall contribute something to the unity of a constructive whole is of first importance. Its position in the design, its relation to the rest of the problem, is indicated in Plate 68. It is, in itself, little more than a problem in line, space and mass, merely an expression of the idea in beaten copper. In Plate 69 is a peacock motif clipped from a modern wall paper. The name of the designer is unknown to the writer. It is an interesting treatment, in line with our present problem, of space breaking within a square.

PLATE SIXTY-NINE.

# TOOLS AND TABLE FOR CARVING

ALL wood-carvers will be interested in the device shown here for holding the work in place, and also in the suggestions for the handles of tools. A singular interest is rightly given by many carvers to the variation of these handles, whether for chisels or gauges, parting tools or veiners. Finding that the greatest progress is made in his work by the centering of his efforts to the adroit, eating-out of the design, the workman so adjusts his tools as to be able to recognize them by touch of the handle. He varies the size, the shape, the texture of the wood—indeed sometimes he even uses bone, ivory or metal for a handle. The woodyards are searched for material that shall give a change of texture; so that he can readily identify the tool by his fingers alone. The right hand, as shown in the illustration, is reserved for guiding, directing and turning one way or the other, while the left is employed in preventing the chisel from slipping forward, adjusting both by manipulative skill rather than actual pressure. The worker will feel the grain of the wood, its direction and density, ever changing, and secure a delicate passage by means of a delicate touch.




It is rather by a skillful nibbling away of texture than by mere force that the work is done.

# THE EQUIPMENT NEEDED FOR DYEING AND THE COLORS FORMED BY OXIDATION: BY PROFESSOR CHARLES E. PELLEW, OF COLUMBIA UNIVERSITY: NUMBER III

BEFORE discussing the next class of dyestuffs, probably the most important of all for the arts and crafts worker, it may be well to say a few words about the general equipment necessary for dyeing, and to give some general rules which may be of assistance to the beginner.

The articles which are necessary for even quite elaborate work are, fortunately, few and comparatively inexpensive. For dye pots by far the most useful are agate ware vessels, large cups being used for class work, and for practical work boilers in sizes varying from one to five gallons capacity, according to the quantity of material to be dyed at one time. It is always best, especially for amateurs, to dye in one batch enough material to complete the work on hand, whether rug, portière, piece of tapestry or the like, so as to avoid the necessity of exactly matching the shade afterward. For three and a half or four pounds of cotton rags, such as is used for rag carpets, 3½-gallon pots are about the right size. This amount of material will be enough for one rug 6x4 feet or so, woven on a hand-loom.

For heating it is best to use a gas stove with four or five ring burners, and it is always best to have one or two large pots set aside for heating water, or for boiling out the raw goods, and another used, when very fast colors on cotton or linen are employed, for boiling out, and brightening the finished materials with soap. These pots should be reserved for these purposes and not used for dyeing, to avoid danger of staining the goods.

The top of a kitchen range will, of course, do for heating, but whenever possible it is best to have a separate stove, set low, so that the top of it will not be more than two or two and one-half feet from the ground. This enables the operator to look down into the dye pot, and stir the goods without straining or excessive fatigue.

While the material is being dyed it should be kept constantly in motion. When working with small amounts of material, or light goods such as straw, raffia, muslin and the like, or delicate or easily spoiled material like silk in skeins, it is far more satisfactory in every way to use for stirring heavy glass rods, thirteen or fourteen inches long, well rounded at the ends. These can be obtained, at little expense, from any dealer in chemical apparatus, and

are always clean and smooth if carefully handled and thoroughly washed. Of course, they are liable to crack and chip if exposed to sudden variations of heat and cold, and when working with large quantities of heavy materials, ten pound batches and upward, are liable to break and do injury. In these cases it is best to use wooden dyesticks, as, for instance, broomsticks cut into two-foot lengths and with ends carefully rounded by whittling with a sharp penknife. But for really careful work it is necessary to have several sets of these dyesticks, two for each main color, and they must be carefully washed each time after being used, or they will stain cloth that is being dyed in light shades, and will soon get soft and rotten from the action of the alkali in the dye baths.

Good rubber gloves are extremely useful, while dyeing, to protect the hands not only from being stained and discolored by the dyes, but also from the action of the chemicals, especially in dyeing with indigo and other vat dyes, where caustic alkalies are used.

Both before and after dyeing it is very important to have at hand a good clothes wringer, preferably with metal frame. In fact, for very careful work there should be two wringers, one to wring out the raw materials, after boiling them in soap and water, or, if clean, in plain water to insure that they are thoroughly wet, and the other to wring out the excess of dye liquor from the goods before rinsing, or, as in some cases, before hanging up to oxidize.

Sufficient room should be provided for hanging and drying, and usually ordinary clothes lines conveniently fastened are all that are necessary. For special purposes, as in class work, for instance, or when working on very delicate material like silk in skeins, it may be necessary to build simple clothes-horses made of thick glass tubing, one inch or so in diameter, supported on wooden frames.

One word of warning here about the use of the colors. Nothing more marks the unskilled workman than the dependence for his shades on individual dyes. The most difficult and the most important part of the art of dyeing, and one that can only be mastered by constant practice and application, is the mixing of simple "primary" colors so as to get the desired color effects. Three, or, at the most, four good colors—a red, blue and yellow, with perhaps a black to save trouble—are all that are really necessary in any one class to get any conceivable shade. Another important matter is to study the gradation in tone that can be produced by "topping" one color with another. For instance, in dyeing some particular shade of green, —say that produced on cotton by Katigen Green 2 B, Elberfeld,—this color can be fairly matched in shade by mixing in proper proportions solutions of one of the sulphur blues with a sulphur yellow, and dyeing the cloth in this mixture. Or the same shade can be reached by first dyeing the cotton blue and then topping it with yellow, or by dyeing it yellow and topping it with blue. The shade will be the same in each case, but the tone will be more or less different, and, almost invariably, the effects from mixing or, better, topping the colors will be more interesting than from the use of a single dye. This is very marked in some other materials, as, for instance, in leather staining.

CLASS II.

*Colors Formed by Oxidation on the Fiber.*

(*a*) Sulphur dyes.
(*b*) Vat dyes.

The dyestuffs belonging to this class are particularly valuable for our purpose because, while applied in one bath and with but little difficulty, they pro-

duce colors which are exceedingly fast to washing and, in most cases, to light.

(*a*) *Sulphur Dyes.*—These dyes, which are now very numerous, have all resulted from the discovery by one of the French dye manufacturers that by heating sawdust and other organic material with caustic alkali and sulphur a coloring matter could be extracted which has certain interesting properties. It was insoluble in water or acids, but dissolved readily in an alkaline solution of sodium sulphide. If cotton or linen was heated in this solution the color would be absorbed by the fiber quite readily, and then, on exposure to the air, the dye would become oxidized and would be fastened to the fiber so permanently that no amount of washing could dislodge it. This coloring matter, known as Cachou de Laval, gave orange brown shades of but little value, but, as in so many other cases, it started investigations which during the last four or five years have entirely revolutionized the dyeing industry.

Every important dye firm has discovered and put on the market a line of colors, blacks, blues, browns, violets, yellows and in one case a red, which have the rare peculiarities of being soluble in alkaline sodium sulphide, of adhering readily without mordants to vegetable fibers and of being set or fixed by exposure to the oxygen of the air.

*Class Names.*—While in general known and identified as the Sulphur colors, the different manufacturers have given special class names to their own series, thus:

Immedial, Katigen, Kryogene, Pyrogen, Thiogene, Thion, etc.

*General Applications.*—These colors are almost exclusively used for dyeing cotton and linen, when shades are required fast to washing, without the necessity of going through a mordanting process. They are dyed in one bath with very little more difficulty than the Salt colors described in the last article, and while not faster to light than the very best of that class, they are not nearly so liable to bleed.

On wool they are very rarely, if ever, used. Wool is almost always dyed with the acid colors in an acid bath, and when there is need for extremely fast shades these are usually obtained by the aid of the mordant colors, as, for instance, Alizarines with chrome mordant.

But for silk they are occasionally valuable, as, for instance, in cases where silk yarns are used for embroidery on cotton or linen goods that are expected to stand washing with hot soap suds. Silk dyed in the usual way with acid colors will "strip" almost completely after a few minutes' immersion in boiling soap and water; while when dyed with Sulphur dyes the colors are permanent.

It must, however, be always remembered that hot alkaline solutions are very destructive to animal fibers, and so special care must be taken when silk is to be dyed with these dyestuffs.

On mercerized cotton and also on artificial silk these dyestuffs take easily and well—in cold or lukewarm baths.

### DYEING DIRECTIONS.

*For Cotton.*—The color, carefully measured out, is dissolved in hot water to which has been added twice as much sodium sulphide (crystals) and a quarter or one-third as much soda ash. In all these formulæ cooking soda may be used in place of soda ash—only in quantities almost twice as large.

The cotton, well wetted, is heated in this dye liquor until it boils, and then salt is added, about two spoonfuls for every spoonful of the dye-stuff. After boiling for some fifteen minutes, keeping the cotton as far as possible below the level of the liquid, the heat is removed and the cotton, as soon as cool enough,

is run thoroughly backward and forward through the wringer, till all extra liquor is squeezed out. It is then shaken out, hung up for half an hour or so to oxidize, after which it is well washed in a boiling soap bath, rinsed free of soap and again hung up to dry.

In case light shades are desired, or the material is tender, the dyeing can be done at lukewarm temperature, or, if at the boil, without the addition of salt.

*For Silk.*—For each spoonful of dyestuff used, there is measured out one spoonful of sodium sulphide and two of glucose. These are dissolved in boiling water and added to the dyestuff, which should contain a little soda, some Turkey red oil and a considerable quantity of Glauber salt. (For three gallons of dye liquor the amount would be about one teaspoonful of soda ash, five of Turkey red oil and two or three tablespoonfuls of Glauber salt.) The silk is boiled in this dye liquor for ten or fifteen minutes, taken out, squeezed through a wringer, shaken out and hung in the air for half an hour, then washed in a hot soap bath and finished by passing through a bath containing a few teaspoonfuls to the gallon of acetic acid or strong vinegar.

*Colors Produced.*—These Sulphur colors are particularly strong in various shades of black, blue and brown. Some of the yellow shades, also, are very fast and good.

As a rule the shades are softer and deeper and much less brilliant than the Direct Cotton or Salt colors described before. They are fast to washing and, in most cases, fast to light.

*Selected Colors.*—

Badische—Kryogene Black T G O.
" Direct Blue G.
" Brown R B.

Casella—Immedial Black N R 7.
" Indone B B F conc.
" Yellow Olive G.

Elberfeld—Katigen Indigo B extra.
" Yellow G.
" Brown 2 R.
" Green 2 B.

Kalle—Thion Black 2 B X extra.
" Blue B conc.
" Yellow G G.
" Indigo Red B.

Metz—Thiogene Black M.
" Cyanine C.
" Gold Yellow O.
" Brown G 2 T.

*After Treatment.*—The colors in the above list are all fast to washing, and in most cases fast to light. When exposed to very fierce sunlight some of them are liable to change their shade somewhat, but even then will be found to fade to nice soft shades not out of harmony with the original.

For very extreme cases it may be worth while to after treat them, as described in the last article, by keeping for twenty or thirty minutes in a hot bath (not necessarily boiling) containing small amounts of copper sulphate, bichromate of potash and acetic acid.

# ALBUMS, PORTFOLIOS AND GUEST BOOKS: BY MERTICE MACCREA BUCK

THE question of color harmony enters so largely into our furnishings today that we are often impelled to try to manufacture in the home workshop articles of daily use which we have failed to procure ready made. Fitness of material is also an important part of this problem of making a room harmoniously beautiful, and this applies even to the bindings of the books, which in a general living room should share the character of the rest of the furniture. In a library there may be scope for elaborate and fanciful bindings, but books like guest books and albums which are used in a living room should be not only durable but simple and sturdy in effect. Albums especially should be built to endure the hard knocks of family life, for in these days of kodaks they hold the record of many a holiday and are frequently referred to. For this reason home-made albums are preferable, for each of the parts may be chosen for some special quality: strong hand-made paper of a dull gray or brown for the leaves, cowhide or sheepskin for the cover, and the coloring of the whole selected with a thought as to the style of photographic paper the family kodak fiend affects, a brown color scheme for sepia prints, blue-gray with gray-brown covers for black and white. If more vivid color is desired there is a certain leather prepared with vegetable dye called Niger Morocco, to be had in a dull red which deepens with age.

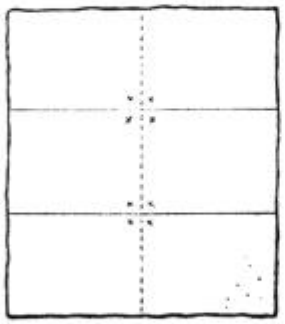
The making of an album is a task which requires no great skill, although patience and accuracy are essential. Let the would-be binder investigate the family workshop and see that he has in hand the following:—a hard pencil; a ruler with a metal edge; two pairs of dividers, both large and small; a carpenter's try square; an awl; a large paste brush; a glue pot and brush; a couple of good smooth boards. There are also necessary some drawing instruments, a T square and triangles, and a few special bookbinder's tools, an ivory paper knife, called technically a bone folder, a paring knife for leather, a small letter press, a finishing press, backing boards and a backing hammer. This small outfit, although it seems to contain so many articles, may be bought for a few dollars.

In the way of materials, a few sheets must be procured of bookboards of various styles, strawboard, a finer style for delicate work, and a few sheets of paper of the desired color. Half a dozen sheets of charcoal paper make a good-sized album. Two sheets of a mottled paper called Morris or Oxford make pretty end papers, and the coloring may harmonize with that of the leaves. A quantity of cheap unprinted newspaper sheets should be kept on hand to cover delicate work; there should also be at least two sets of smooth tins and a yard of coarse book linen.

The album is best made with flexible covers, and should be made all in one section, that is one set of leaves folded one inside another. Six sheets of paper will be ample.

Take one sheet and lay it out on a large flat board. Divide the left edge into three equal parts and draw lines across at right angles to the left edge. Find the center of the top edge and draw a line down *exactly* at *right angles* to the cross lines. Mark the corners with xs as shown in the drawing (Ill. No. 1). Cut the *cross lines* with a sharp knife held against the edge of a metal rule, and fold each piece very carefully on the up and down line, so that the upper edges *exactly coincide*. Cut and fold each sheet in the same way. This

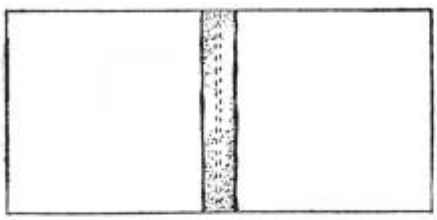
gives eighteen sheets, two of which may be made into end papers. Cut a piece of Morris paper the size of each of the two sheets. Lay them figured side



FOLDING SHEETS FOR ALBUM. METHOD OF OBTAINING SQUARE: ILL. NO. 1.

down on a clean sheet of paper. Dip a large paste brush into flour paste which has been strained smooth, and cover every part of the paper, holding it in the center with the thumb and forefinger. Lay the charcoal paper on the Morris paper, lay a clean paper over and rub down with the bone folder. Do each end paper the same way, and put them to press between tins covered with clean papers.

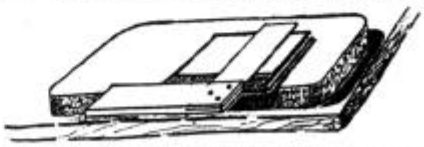
When they are perfectly dry take out of the press and fold, figured side in.



END PAPER, SHOWING BOOKBINDING CRASH: ILL. NO. 2.

Rub down the creases with the bone folder. Cut a piece of book linen 1½ inches wide and the length of the fold just made. Paste this and lay the two end papers on it about 1/16 of an inch apart, as shown in the sketch (Ill. No. 2). Press till dry, and fold around the other sheets, with the book linen out, as it will come between the book and the cover. Press the book thoroughly, and "knock it up," by holding it between the two hands and tapping the "head" or top on a horizontal surface. Next place the book on a stone and lay a try square across the head as shown in the sketch, being careful that the try square is exactly perpendicular to the back of the book (Ill. No. 3).

This is all the cutting edges necessary in an album, so the next step, after the book has been well pressed, is sewing. This should be done with embroidery



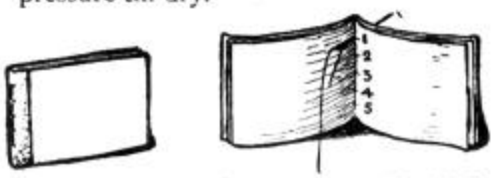
CUTTING HEAD OF ALBUM—TRY SQUARE AT RIGHT ANGLES AT BACK OF BOOK: ILL. NO. 3.

silk, of a color to blend with the book, or contrast with it. Orange silk is effective in a brown album. The stitches should be an inch apart, and holes should be pricked (Ill. No. 4) through pencil marks laid off with a rule before any stitches are taken. Begin inside, leaving a thread an inch long. The stitches go over and under, from top to bottom, returning in the same holes with an effect like back-stitching. When the top has been reached tie the ends of silk in a flat knot, cut about two inches long and fray out the ends (Ill. No. 5).

A flexible cover is suitable for an album, but it is necessary to have inside the cover a light board to make the leather lie flat. The boards should be the exact size of the leaves and pasted to the end papers, with paste in which a little glue has been stirred. Tins should then be placed between the end papers and the first sheet of the book, and the book put in press. To make the pattern for the leather, which should be

PREPARING FOR PRICKING HOLES: ILL. NO. 4.

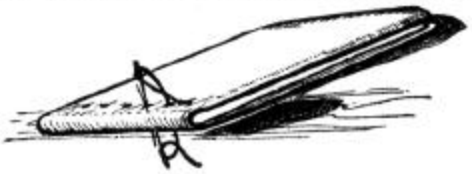
made to project ½ an inch beyond the leaves of the book, place the book, back down, on a large piece of manila paper and draw around the back, then tip the book to the right side and draw around it; same with the left. Remove the book and correct these lines with the ruler, and draw another set ½ an inch outside of these. The leather may then be cut by this pattern, the lines being drawn later on the wrong side to correspond with those of the pattern. The leather should be glued in place, the glue being applied to the boards and back of the book, and the leather quickly folded in place (Ill. No. 6). Clean paper should then be laid over, and the bone folder used to rub down the back and sides until every particle of leather is stuck. The book may then be put under slight pressure till dry.




SEWING A SECTION: ILL. NO. 5.

The last step is lacing the back with thongs. Holes should be made with an awl about 1 inch apart, and the thongs of leather run through in cobbler's stitch as shown in the sketch; the ends being tied in the middle (Ill. No. 7).

A guest book is almost as simple of construction, except that it should be made of several sections of any desired size, and sewed on tapes to allow of free opening. Charcoal paper and smooth, thin water color paper are both good materials and, if the paper is folded twice, that is, cut in half and each half cut in half, a good size is obtained. Each section should be prepared as described above and the end papers made and lined as in the album; but each end paper should have, instead of a piece of book linen, a guard of



COBBLER'S STITCH: ILL. NO. 6.

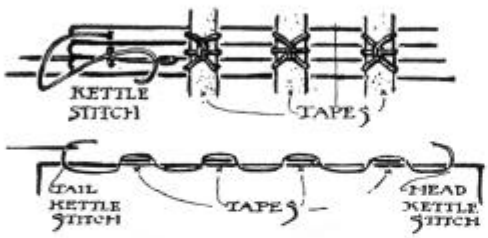
thin strong paper wide enough to fold one over the first section and the other over the last section. These being put in position the book must be carefully "knocked up" and put in press as shown in the sketch (Ill. No. 8), with the head and back vertical. It should be under heavy pressure over night. A better style of end paper, too elaborate to be described here, may be found in Douglas Cockerell's book on Binding.

In sewing a book there are certain stitches called kettle stitches, taken about ½ an inch from each end, and lines must first be drawn for these with the try square exactly perpendicular.

LEATHER THONGS RUN THROUGH IN COBBLER'S STITCH: ILL. NO. 7.


HEAD OF BOOK MUST BE VERTICAL: ILL. NO. 8.

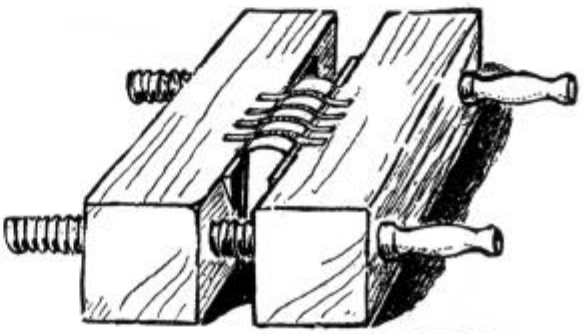
Then the space between may be divided up in tapes, five equal spaces if four tapes are to be used. Lines must be drawn across with a soft pencil, and on each side of each of these another heavy line half the width of the tape away. These lines should all be made very distinct, and it is well to saw in the lines for the kettle stitch with a back saw, about 1/16 of an inch. The other marks should be pricked through in each section. The sewing always begins with the end paper, and a long thread of embroidery silk should be used, with the end tied to a tack in the table, so that it will not pull through into the book. The thread goes through the right-hand kettle stitch hole, through the end paper and first section and comes out of the hole at the right side of the first tape, crossing the tape and going in at the other side, and so on till the last kettle stitch hole is reached, when the second section is laid on the first and the thread goes into the kettle stitch hole just above, as shown in the sketch (Ill. No. 9). The further method and kettle stitches are illustrated in the drawings. Every three or four sections a buttonhole stitch is made catching the threads in each tape. The ends of the thread must be tied with a weaver's knot. The sewing complete, the last thread is secured with a triple kettle stitch, and the first end untied and secured in the same way.




SEWING ON TAPE—KETTLE STITCH: ILL. NO. 9.

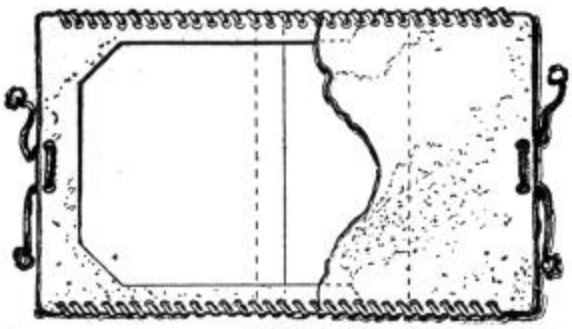
Rounding is an important process, as it gives shape and style to the volume. The back of the book should be soaked with glue, which is allowed to nearly dry, the book is placed on a table, and the top pressed forward with the palm of the hand. The back is then tapped with a backing hammer. The book is then reversed, and the other side of the back rounded.

Backing makes the rounding perfectly solid. To back the book it must be put in a press, with the backing irons placed the thickness of the boards below the edge, as shown in the sketch. The edges are tapped with the backing hammer so they form a joint, as shown in the end view (Ill. No. 10). The whole back is then tapped until it is solid, a strong wrist blow being used.



PRESSING—BOOK READY FOR BACKING: ILL. NO. 10.

The book must be allowed to dry, and thin boards may then be pasted on, with 1/8 of an inch of space between the joint and the board. These should be glued in place as in the album, and if the tapes are thin, they may be glued to the boards and the leather put directly

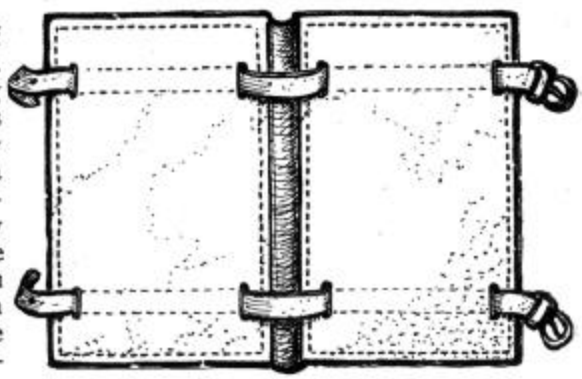


WRITING PORTFOLIO OF WHOLE CALFSKIN: ILL. NO. 11.

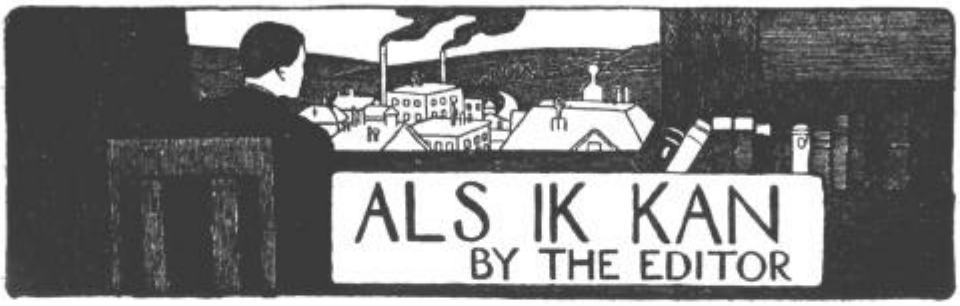
over, but generally an extra paper or thin board is necessary. The leather cover may then be put on with projecting edges as in the album.

In case the worker has found the work of sufficient interest to wish to learn the method of turning in the leather and "finishing," a more detailed article by the writer, which appeared in THE CRAFTSMAN of October 1906, may be consulted.

A word on the subject of portfolios may not come amiss. The size and proportion being decided, the number of pockets should be considered. A very practical style is made of a whole calfskin, the pockets being formed inside the covers, by folding the skin, as shown in the sketch, and the top and bottom being laced with thongs, which also form ends to tie at the front (Ill. No. 11). The center of the back should be stiffened by putting on an extra piece of leather extending inside the pocket. The opposite side should be cut away so as to form a writing pad in which blotting paper may be inserted. Another portfolio is intended especially to hold sketches, which are often too long to go in the pockets of the ordinary size (Ill. No. 12). It is made of calf or sheepskin, lined with a thinner leather, the two parts sewed together all around with cobbler's stitch. An extra piece of thicker leather stiffens the the back. When the sewing is completed slits are cut with a sharp knife through which leather straps are run, forming on the inside the equivalent of a pocket for long narrow sketches which may be slipped inside the strap. If desired, the latter may be finished with buckles.



SKETCHING PORTFOLIO WITHOUT POCKETS: ILL. NO. 12.




# HIGHER WAGES AND LESS COMFORT

THERE come times in the lives of nations, as of individuals, when it is well to take pause and calmly review conditions. Such a time has come to us, the American people, and there are indications that we recognize the occasion for rest and reflection.

The history of our republic, and particularly that of its last hundred years, is a record of the most marvelous material progress. We have pursued, overtaken and passed civilizations that had centuries the start of us. We lead the world in mechanical arts. We are proud, justly proud, of our supremacy. But our satisfaction is beginning to be tinged with an uneasy suspicion that, perhaps, we are paying too great a price for our prosperity. That, perhaps, this mighty nation which our fathers builded and we are exploiting, is not upon so stable a foundation as we had fondly supposed.

We are learning that the race for wealth in our proud "age of steam" has involved a prodigal expenditure of fuel and raw material. We are adopting belated measures for the conservation of our impoverished natural resources. Let us, also, give thought to means for the relief of our deteriorating humanity. For, in the fevered rush of our progress, we are heedlessly sacrificing flesh and blood to the Machine Moloch.

Our latter-day development has been almost entirely in the direction of increased manufactures. We have become lopsided and need rebalancing. Fifty years hence we shall have a population of two hundred million souls. By that time, unless our agricultural production is increased to its right proportion, we shall be a food-buying instead of a food-exporting people. But that is almost the least evil to be anticipated from a continuance of the undue preponderance of our mechanical industries.

We are seriously threatened by hypertrophy of manufactures—if, indeed, we are not already suffering from such a condition. It is becoming increasingly difficult to find markets for our goods. The cost of production is rising, while competition with our European rivals grows ever keener. With temperamental optimism, we pin our faith on the Panama Canal. But the Canal will benefit every commercial country more than it will ourselves.

Many of our mills and factories turn out goods with the object of creating desire, rather than of meeting any existent demand. They often sell their output at cost, or less, for the sake of keeping the wheels running. The result of this superfluous production of cheap articles is to create a taste for unnecessaries which in time develops into a fancied need for these things.

Life is becoming constantly more and more complex with us. And each addition to its complexity means one more

point at which our happiness and comfort are vulnerable. You must strip the loin-cloth off a Hindu, or raze his flimsy hut to the ground, if you would inflict an injury on him. But the peasant —and more especially the artisan—of our refined civilization may be touched to his detriment at a thousand points. With a constantly increasing wage, he is becoming constantly poorer. For a man is rich in proportion to his ability to command the things that he desires. And "the Fraction of Life can be increased in value not so much by increasing your Numerator as by lessening your Denominator."

The American mechanic, with twenty dollars a week, should be able to support a family in decent comfort and save money. But he can not, because his style of living involves so many unnecessaries, which he has come to consider as essential to his well-being. He must wear broadcloth on Sunday, and his wife a silk gown. His daughter must have a piano and his son a gold watch.

We would not begrudge these things to the workingman if they were in any true sense conducive to his happiness. For his life is pitifully hopeless and joyless. He is a slave to the system that subordinates the man to the machine. Stunted in body and mind, he toils through a life of mechanical routine, a "mere anatomy," of less individual importance in our industrial economy than one of the wheels or cranks of the engine that he tends. For wheels and cranks cost money and carry responsibility, whilst the workman is a drug in the market and is fast becoming an unreasoning automaton. As a social unit he is of even less consequence. His service is that of a slave. His individuality is crushed. His life's work reaches its finality with his death. He creates nothing. He leaves nothing behind him. His country is no better for his having been. His children are born to a heritage of unintelligent drudgery. And so the line of bond-servants to the inexorable Machine God is perpetuated.

There is no denying that we must have machines and we must have men to tend them. Many of our processes can be profitably performed only by mechanical methods. Also, there are, and always will be, among us men of such limited intelligence as to be fit only for the life of the factory and the mill. But, in the pursuit of mechanical means, we have gone so far that the machine designed to be our servant has become our master. We have lost the sense of values and have come to disregard the worth of the workman's brain and his individuality when reflected in the product of his hand. We violate true economic principles by making cheapness the chief object to be sought in our manufactures. Ten cents worth of labor is expended upon a dollar's worth of material with the result of spoiling the material and wasting the labor. Craftsmanship is at a discount. Everything we use is turned out by the thousand from a snorting contrivance of iron and steel. To be thoroughly consistent, we should adopt the Buddhist convenience of machine-made prayers.

But the pity of it all rests not so much on the flimsy product as on the paralyzing effect of the system upon our people. The loss to our workers—and reflectively to the nation at large—is vastly greater than we suspect. Handicraft and the intelligent self-direction of labor involve the most valuable training. The use and control of tools quicken a man's mind, sharpen his resource faculty, train him to correct vision and stimulate that sense of power that comes of creation. All this, and more, we suppress in hundreds of thousands of our people when we draw to our power-plants men who are fitted

for better things, and convert them into dull automata. In this terrible waste of human material, thousands of tons of sentient beings are used yearly, just as we use pulp, or steel, or wool, and with no higher purpose or result. It is the tribute to our materialism and universal mechanism.

And is there not here food for reflection and occasion for pause? "For what is a man profited, if he shall gain the whole world, and lose his own soul?" What shall be the fate of the nation whose intelligence is devoted to mere money making and its people degraded to mere machines?

Our cities are congested with wage slaves, bound to the iron wheel of the Machine God, blind beings struggling in a grimy, depressing environment for places in the hopeless ruts in which they live. If we might thin out the more promising and lead them away to fields of free endeavor, their betterment would entail alleviation of the lives of those that should be left.

This twentieth century must see a movement back to the soil, if we are to fulfill our promise of national greatness. The crying need of our country is for a yeoman citizenry—that backbone of every democracy. It is only in the free, open life upon the land that we may breed the men of brawn and brain who alone can form a stable foundation of our republic. Do not let us cherish the delusion that because our city workers display the ability to perform arduous tasks, their children and grandchildren will enjoy similar vigor. The business man and the mill hand of today are using vitality derived from forebears who grew in the nursery of nature, but they are not transmitting it in like degree. Where it is not replenished from the same source, this strength of mind and body is gradually dying out, even as the forest dies under continuous cutting without replanting.

It is only on the land that you may find the independent man, for your factory slave and your drudge of the desk are not such. Under the open canopy of heaven we must look for our freemen. "America is here or nowhere." The husbandman is master of his own actions, moulder of his own fortune. As regard the others, the Captains of Industry may command their System: "Make this nation toil for us, bleed for us, hunger and sorrow and sin for us." Chiefly by fostering and upbuilding our agricultural interests may we find escape from the culmination of our drift toward control by a greedy and remorseless plutocracy.

Let us put men behind the plow and we need not concern ourselves about a standing army. Your son of the soil is a natural patriot, for he has a definite possession in his country. Its welfare and its safety involve the prosperity and existence of all he owns. He will take up arms in defence of his home and the heritage of his children instinctively, as the tiger will protect its cubs. The history of every country teems with examples of this truth, but the most familiar illustrations are furnished by the Anglo-Saxon race. Who does not remember Henry's stirring appeal at Agincourt:

"And you, good yeomen . . . show
us here
The mettle of your pasture; let us
swear
That you are worth your breeding."

When the "Invincible Armada" menaced England's freedom and her faith, she had neither army nor navy to withstand it, but her rustic patriots poured into every port and manned the ships that repelled the formidable foe. So, in our struggle with the mother country, the men who handled the flint-lock were fresh from the farm.

Nor may it be supposed that the yeoman soldier is less efficient in these later

days. During our war with Spain, the largest proportion of our volunteer army was drawn from the rural districts and in the Boer war no better service was rendered for England than by her colonial and yeomanry regiments.

Let us strive then to win the best blood and sinew of our country back to the soil where it rightfully belongs. No more important task lies before us. Its performance is essential to our future prosperity. The conservation of our natural resources is a vital necessity, but not more so than the development of that great national resource in peace or war—a sturdy, prosperous yeoman citizenry.

A large and very handsome volume that might almost be termed a portfolio of illustrations with explanatory notes is called "Country Residences in Europe and America." Italy, France, England and America are represented and the villas, châteaux, manors and country seats are given in chronological order, showing the development of architecture from mere splendor to comfort, the relation of one style to another and how the later buildings developed from the earlier.

The first part of the book is devoted to a notable group of Italian villas, especially those built in the fourteenth century by the Roman cardinals. These are purely Renaissance in character and were the work of the famous Italian architects, who seem to have been inspired by the times, conditions and the climate. These villas were designed for a hot, sunny climate and were used solely as summer residences and places of entertainment. Therefore, the question of home comfort in the buildings themselves is kept rather in the background and the chief attention is devoted to the magnificent formal gardens with their box parterres, clipped hedges of cypress and yew, avenues and boscage of ilex, stone pine, plane, poplar, orange and lemon trees. The illustrations of these villas and gardens are large and beautiful reproductions of photographs, showing both general views and details, and giving an excellent idea of the stately arrangement of terraces, fountains, stairways and the like, and also of the wonderful statuary which this age produced and used so abundantly in its landscape architecture.

The French châteaux form the next group, and here, especially in the earlier period, which is about contemporary with that of the Italian villas just mentioned, the chief attention is paid to the architecture of the château and not so much to the elaboration of the surrounding grounds. Wide stretches of lawn and natural woodland take the place, to a great extent, of the formal gardens, and even when these appear they are not so fanciful in effect as those in Italy. Water is used to the best advantage in a decorative sense, but more in the form of natural lakes and streams than of artificial fountains, basins and cascades. With the advent of Le Nôtre in the fifteenth century and the building of Versailles, the style changed to something much more nearly approximating the Italian.

Perhaps the division of the book that will make the closest appeal to an American audience is that dealing with the English country places. The examples given show the different periods of domestic architecture from the Gothic prior to 1500 down to the present time, and it is interesting to trace throughout the development of that home loving and home making spirit for which the English people have been noted ever since their national history began. While much attention is given to the stately historic manors like

Haddon Hall, Warwick Castle, Mount Edgecombe and the like, there is also a place made for the less imposing country seats of more modern times. Not only is the architecture most interesting in all the examples shown, but the surrounding landscape has a charm which seems to belong to this country alone. The plans give some idea of the extent and design of these places, and the illustrations convey an excellent conception of that indefinable air of repose and antiquity, of the richness in color and mass and the noble spaces that seem to have been the product of a happy combination of natural conditions instead of something made by the hand of man.

The last division is given to the reproduction of country places in America. With excellent taste and judgment the earlier examples in New England and in the South are chosen as being more representative of American life than the later places which show such marked traces of foreign influence. Longfellow's home is beautifully illustrated, also Mount Vernon, Hampton in Maryland, Arlington and a number of others. ("Country Residences in Europe and America." By Louis Valcoulon Le Moyne. Size 11 x 15 inches. Illustrated. 460 pages. Price, $7.50 net. Published by Doubleday, Page & Co., New York.)

AN excellent book of instruction for school children, and of reference for others whose knowledge of Greek mythology has faded into the past with their school days, is "Greek Myths and Their Art," treating Greek myths as an inspiration in the art and literature of the world. The story of each myth is plainly and simply told in language that is easily understood by any child who can read, and the book is illustrated with half-tones of the most famous pictures and statues of the Greek gods, goddesses, heroes and nymphs. It is attractively bound in gray linen, but is not so dainty that a book-loving child cannot take solid comfort with it. ("Greek Myths and Their Art." By Charles E. Mann, M.S., Superintendent of West Batavia Public Schools. Illustrated. 155 pages. Price, $2.50 net; postage, 25c. Published by the Prang Educational Co., New York and Chicago.)

THE charming series entitled "Masterpieces in Colour," edited by T. Leman Hare, now contains fourteen volumes. Each one of these is devoted to a brief historical and biographical sketch of some one of the great masters and his times, illustrated by reproductions in color of his best known pictures. The whole set is almost indispensable to any one who is sufficiently interested in painting to wish to keep well informed of the main facts concerning the world's great masters of painting and to be able at any time to refer to accurate reproductions of famous pictures. The books are about the size of an ordinary duodecimo volume, but light and thin (averaging eighty pages each), so that they are easily handled. They are very artistically bound in wood-brown pasteboard, roughly lettered in black and bearing on the front cover a color reproduction of the best known painting of the particular artist of whom the book treats. The typography is beautiful, having almost a black letter effect, and the books have every appearance of being handmade. The series at present includes "Velazquez," "Reynolds" and "Titian" by S. L. Bensusan; "Turner" and "Romney" by C. Lewis Hind; "Greuze" by Alys Eyre Macklin; "Botticelli" by Henry B. Binns; "Rossetti" by Lucien Pissarro; "Bellini" by George Hay; "Fra Angelico" by James Mason; "Leighton" by A. Lys Baldry; "Rem-

brandt" by Josef Israels; "Watts" by W. Loftus Hare, and "Raphael" by Paul G. Konody. Others are in preparation. ("Masterpieces in Colour" Series. Edited by T. Leman Hare. Illustrated in color. 80 pages each. Price of each volume, 55c. Published by Frederick A. Stokes Company, New York.)

HAMLIN Garland knows his West as one knows the home of his childhood, and his story "Money Magic" is Western in the very fiber of its being. The plot is interesting, of course, and well worked out. It treats of a typical Western girl, plucky, straightforward, clean minded, who bears the burden of supporting her family until it grows too heavy for her and then marries an elderly gambler whose love for her is so great that he renounces the calling which hitherto has stood between them. Just before the wedding the man is shot and nearly killed, so that he is a helpless invalid and entirely dependent upon the care of his young wife during all their brief married life.

The gambler owns a mine and he can give his wife money in plenty. What this money does for her, not only in the little Western town where they live but in Chicago and New York, is well told, and also the unfailing adaptability of the American girl to luxurious circumstances appears in her development under the magic influence of wealth. The final sacrifice of the old gambler, which frees her to marry the man who has really won her love, is the climax of the book, which is not only interesting and convincing, but has a big human quality in it that grips the heart of any one who knows the West as Hamlin Garland knows it. ("Money Magic." By Hamlin Garland. Illustrated by J. M. Marchand. 355 pages. Price, $1.50 net. Published by Harper & Bros., New York.)

ENTHUSIASTS over Sheffield plate will be interested in a book upon this subject by Bertie Wyllie, who is an acknowledged authority. The book is not so much a history of Sheffield plate as it is a text book whereby genuine pieces may be distinguished from imitations, so that it is a volume more useful to the collector than to the general reader. It is illustrated with reproductions of a large number of fine examples which of themselves are almost sufficient to so familiarize the reader with the predominant style that a spurious piece would at least be looked at sharply instead of being purchased on faith and the assurances of the dealer. ("Sheffield Plate." By Bertie Wyllie. Illustrated. 117 pages. Price, $2.50 net. Imported by Charles Scribner's Sons, New York.)

EVEN in this country of few traditions and fewer ancestors there has been developed a very well defined interest in heraldry. Just why this is so it is difficult to say, for the escutcheons that date from the ancient days of chivalry would seem to have little to do with twentieth century America, but nevertheless it is a fact, and people who have taken it up as a fad will probably be glad to know that a recently published book entitled "Heraldry as Art" has been brought to this country from England. The subject is treated more from the viewpoint of the artist than that of the man or woman who cherishes a genealogical tree, as the decorative suggestion of heraldic devices is given the most prominent place in the book. Nevertheless the symbolic use of various animals and monsters and laws governing armorial accessories of all kinds will make the book valuable to all

students of heraldry. ("Heraldry as Art, an Account of Its Development and Practice Chiefly in England." By G. W. Eve. Illustrated. 308 pages. Price, $5.00 net. Imported by Charles Scribner's Sons.)

A luxurious volume printed upon heavy deckle-edge paper and illustrated with beautiful photogravures has been published as a tribute to the memory of Augustus Saint-Gaudens. The biographical sketch and descriptive notes are by Royal Cortissoz, who has made use of a portion of the material which he used in different magazines during the lifetime of the sculptor. Mr. Cortissoz shows a most sympathetic understanding of the man of whom he writes, as well as a keen critical appreciation of his art. The illustrations not only convey a most adequate idea of Saint-Gaudens' work, but are unusually beautiful when considered merely as pictures. ("Augustus Saint-Gaudens." By Royal Cortissoz. Illustrated with reproductions of Saint-Gaudens' works. 85 pages. Price, $7.50 net. Published by Houghton, Mifflin & Co., Boston and New York.)

THE drawings of Michael Angelo form the subject of a book that might almost be termed a portfolio, for it consists chiefly of reproductions of more or less unfinished drawings made by the master in red and black chalk, pen and bistre. There is no attempt made in the text to give a sketch of the life of Michael Angelo or any general appreciation of his work as a whole. The book is devoted entirely to the drawings which are such interesting proofs of his exhaustive studies in anatomy and which are now found here and there in the principal galleries and museums of Europe. The selections made for this volume are mainly from the Royal Collection at Windsor, the British Museum and the University Gallery at Oxford, and they represent admirably the methods employed by Michael Angelo in gaining his astounding effects. ("Drawings of Michael Angelo." Text by E. Borough Johnson, R.I. Illustrated. 60 pages. Price, $2.50 net. Imported by Charles Scribner's Sons, New York.)

THE man or woman who can afford the luxury of a country home, whether costly or inexpensive, elaborate or simple, generally delights in planning it, and it is universally admitted that no type of country house contains so many kinds of charm as the bungalow. People who are interested in summer and country homes will like to see a book concerning bungalows, camps and mountain houses that contains a large variety of designs by a number of architects, showing buildings that have been erected in all parts of the country. These include camps, hunters' lodges, log cabins, bungalows and also permanent dwellings suitable for a warm climate such as would be found in California or the Southern States. The book is amply illustrated and contains floor plans, full descriptions and estimates of cost. It is full of useful information and is very suggestive in character, showing as it does the achievements of different architects who have become noted for this style of building. ("Bungalows, Camps and Mountain Houses." Selected and Compiled by the editor of the *Architects' and Builders' Magazine*. Illustrated. 111 pages. Price, $2.00. Published by William T. Comstock, New York.)

OF books about Italy there is no end, but there is rather unusual interest to be found in "Cities of Italy," which are the impressions of a traveler

who not only enjoys the cities as they are now, but is also interested in the wonderful history that forms the greater part of their charm. It is unlike most books of travel in that it is a series of vivid pictures of this or that city, the chapters being somewhat in the form of short essays upon the characteristics of each place. It would be a delightful book to take to the country and pick up when one is tired of newspapers and novels, for it is not profound enough to make any great mental tax, nor yet light enough to be a bore to the reader surfeited with "summer reading." ("Cities of Italy." By Arthur Symons. Illustrated. 267 pages. Price, $2.00 net. Published by E. P. Dutton & Co., New York.)

IN describing the development of a most livable country home, from the day when the owners first found the site on which it was subsequently built to its final complete state after four or five years' habitation, Frances Kinsley Hutchinson has written a book of real value to country dwellers. It is easy and conversational in style and full of the kind of information about house-building and gardening that people seldom get except by experience. ("Our Country Home." By Frances Kinsley Hutchinson. Illustrated. 278 pages. Price, $2.00 net. Published by A. C. McClurg & Company, Chicago.)

THE title of the book "A Woman's Journey through the Philippines" causes a momentary doubt in the mind of the prospective reader—its enjoyableness depends so much upon who the woman is and how she journeyed. When one is told, however, that she is a young army officer's wife, with a delightful American sense of humor, who journeyed on a government boat to parts of the Philippines never before visited by a white woman, and when one is further informed that she has a keen power of observation whose impressions are recorded by an extremely facile pen, if after that doubts about its interest and charm are not entirely gone, they will be completely dispelled by reading the book. ("A Woman's Journey through the Philippines." By Florence Kimball Russel. Illustrated. 270 pages. Price, $2.50. Published by L. C. Page & Company, Boston.)

PEOPLE who worry, whatever the cause, would do well to read "Worry, the Disease of the Age," by Dr. C. W. Saleeby. It is not especially a technical book, nor is it very profound or scholarly, but it goes briskly and sensibly to the root of a great deal of our modern nervous tension and gives some plain talk to people who are inclined to "fuss." Not only does it go into the psychology of worry, but it also takes up in detail its consequences in relation to physical disease, as well as in its effect upon health of mind. Upon reading it one is surprised to learn how many things can be traced back to worry as the primal cause and how many ways one is worried without knowing it.

As to the other side, some of the good effects of worry are given. For example, its services as a maker of religions and the aid it has given to the progress of the world. Also, there are some practical suggestions regarding methods of curing the bad habit of worrying, so that the merciless analysis of one's weaknesses does not leave one entirely discouraged. ("Worry, the Disease of the Age." By C. W. Saleeby, M.D., F.R.S. (Edin.) 311 pages. Price, $1.35 net. Published by Frederick A. Stokes Company, New York.)

A somewhat unusual theme was adopted by Mark Lee Luther when he wrote "The Crucible." It is

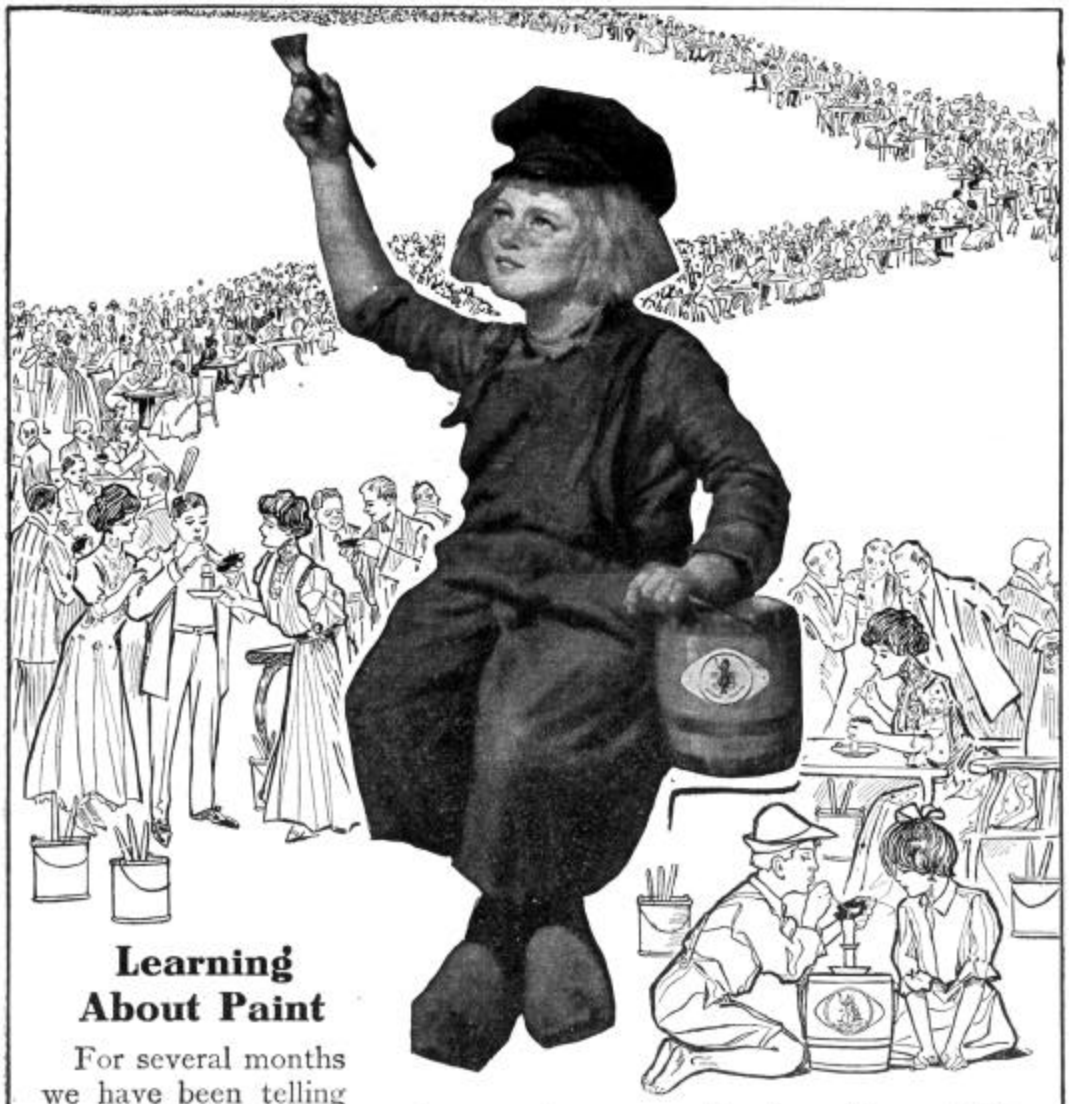
a strong novel, and it deals with the everlasting stigma left by the reform school upon a girl who was sent there by her people. There is nothing wrong with the girl except that she is a fearless, independent creature who does not take kindly to the ways and opinions of a mother and sister who are distinctly of a different social grade. The girl's father was a gentleman and a man of ability, and she reproduces these qualities as faithfully as the other sister reproduces the narrow meanness and commonplaceness of the mother.

The two combine in harassing the girl until she is goaded to revolt, when they promptly send her to the reform school. The first part of the book deals with her life in the institution and all the rest is devoted to her efforts to get away from the disgrace of having been sent there, however unjustly. Of course, a love story is woven in with it, and it all ends happily, but it is a searching analysis of some of our methods of dealing with what are called unruly children. ("The Crucible." By Mark Lee Luther. With illustrations by Rose Cecil O'Neill. 341 pages. Price, $1.50. Published by The Macmillan Company, New York.)

A beautiful special number of the *International Studio* is devoted entirely to the gardens of England, especially those of the southern and western counties. It opens with a brief history of garden making in England with just a glance at the foreign gardens from which the accepted styles were adapted. A comprehensive review of the principles of garden making follows, and the rest of the book is given up to the really wonderful illustrations, some of which are in color, but the greater part in half-tone. These show all the rich quality of the typical English garden and should be full of suggestion to all who love beautiful gardens. ("The Gardens of England." Special Winter Number of *The Studio*, 1907-8. Illustrated. 162 pages. Price, in paper, $2.50 net; postage, 25c.; in cloth, $3.00 net; postage, 35c. Published by The John Lane Company, New York.)

ANARCHISM in all its phases is the subject of a book called simply "Anarchism," by Dr. Paul Eltzbacher. It enters tersely and clearly into the main principles of anarchism and the teachings of Godwin, Proudhon, Bakunin, Kropotkin, Tucker and Tolstoi, showing the different points of view of these radical thinkers and giving a fairly clear conception of their theories of "no-government." The book is hardly wide enough in its scope to command a large audience; nevertheless, to students of social conditions it is a good book of reference for the settling of questions concerning true anarchism and the radicalism that sometimes approaches so near it as to pass for it. ("Anarchism." By Dr. Paul Eltzbacher. Translated by Steven T. Byington. With portraits. 309 pages. Price, $1.50. Published by Benj. R. Tucker, New York.)

MANY questions that occur to the Occidental when he comes in contact with the confusing and subtle civilization of that mixture of races and mingling of religions and customs called the Turkish Empire find their answer in a recent book by Mr. W. S. Monroe. It would be a valuable guide to the traveler, an authority for the student, and equally a book of interest to the ordinary reader. ("Turkey and the Turks." By W. S. Monroe. Illustrated. 340 pages. Price, $3.00. Published by L. C. Page & Company, Boston.)



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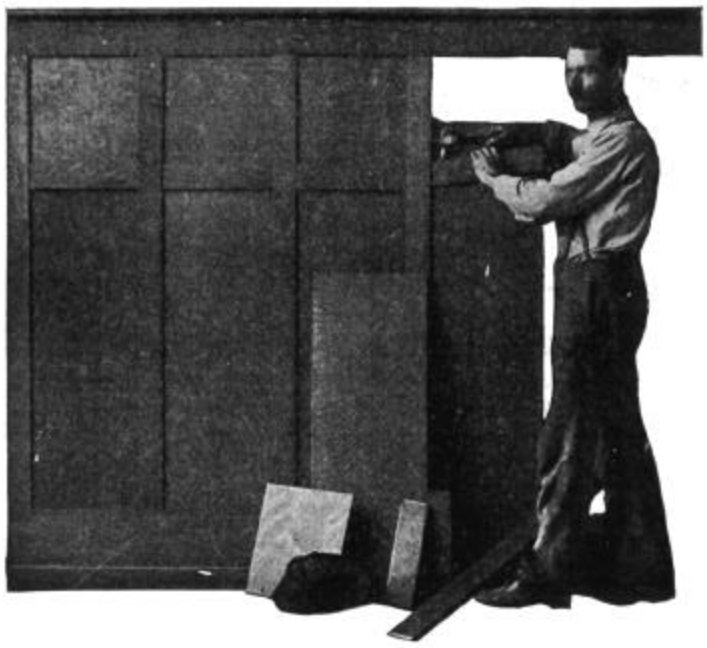

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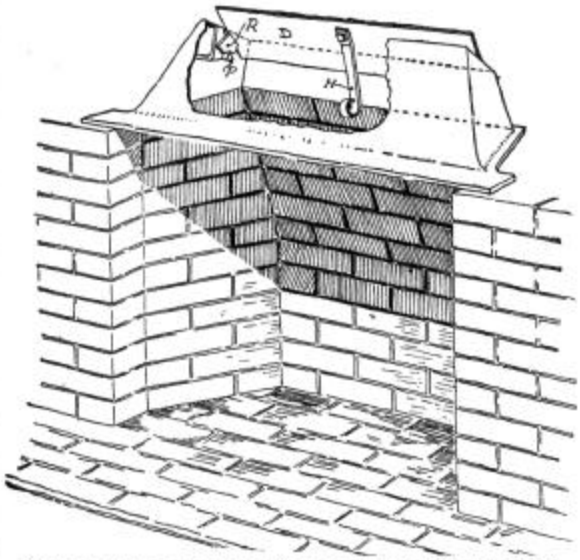


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