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The Craftsman

"The lyf so short the craft so long to lerne"

TEXTILES Old & New

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THE CRAFTSMAN

JANUARY MDCCCCII

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PUBLISHERS' ANNOUNCEMENTS

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FOREWORD

THE present issue of "The Craftsman" offers a number of articles representing different phases of the textile industry: historical, economic and social.

From each one of these papers it is plain to deduce that a partial return to long disused handicrafts must occur in the near future, if the interests of art are to be favored, and the good of the artisan to be considered.

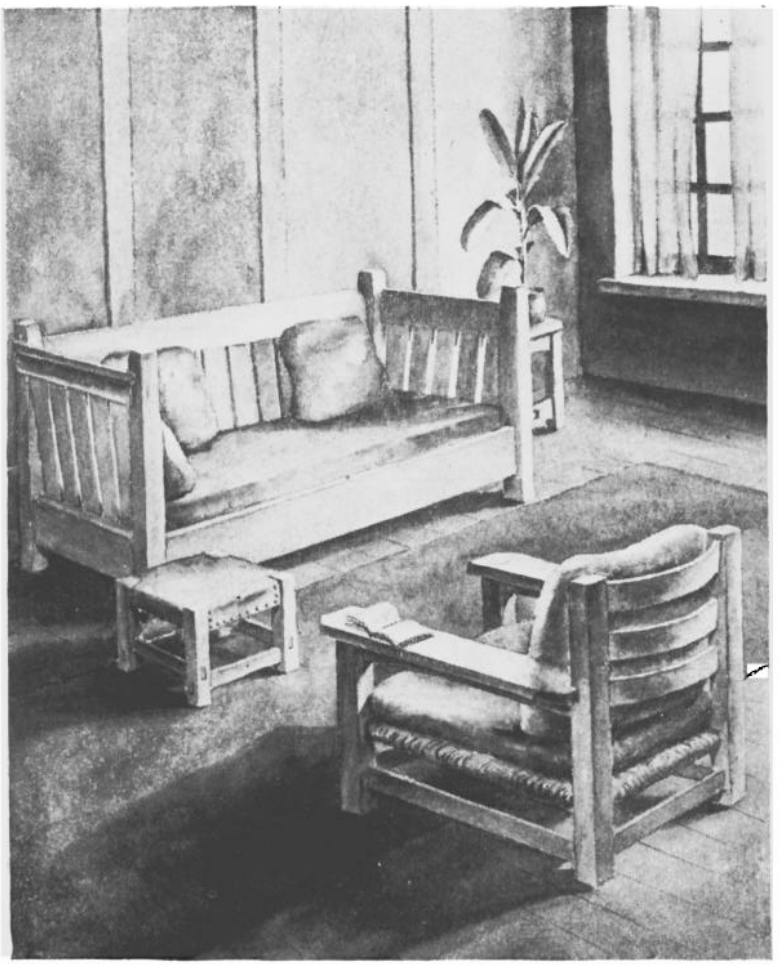
The description of the Hazlemere industries recently established in Surrey, England, and the notes upon the fireside industries of Kentucky will doubtless receive the attention which they merit.

As an ally of the craft of weaving, the art of design can not be passed over in silence. But as the treatises and articles written upon this subject from the aesthetic point of view, almost outnumber the possible readers of the same, it has seemed best to invite thought in a less usual direction. With this intention an article has been prepared upon the life-history of a design, tracing its origin, development and decay, as biologists study the same phases in the history of a natural species. The method of study suggested is based upon the researches of Alfred Haddon, an eminent zoologist of Dublin, Ireland.

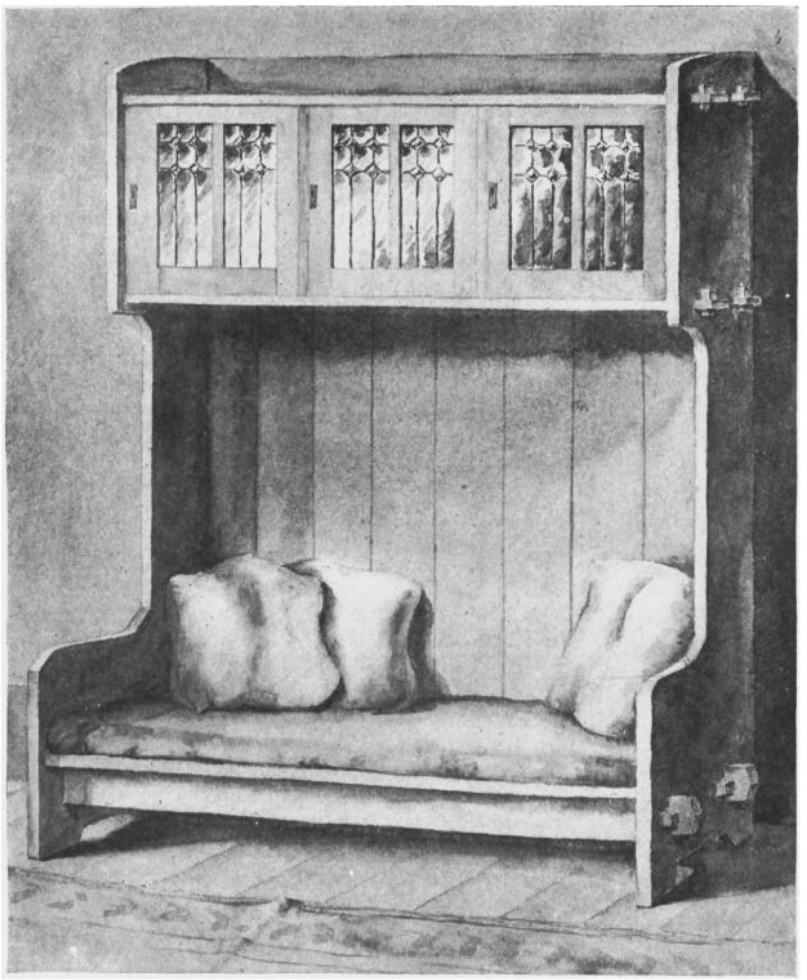
The continuity of subject and aim which is desired by the Editors of "The Craftsman" to be the distinguishing mark of their publication, will be maintained in the February issue. That number will contain, as its principal article, a sketch of the life and work of Robert Owen, one of the chief craftsmen of his day, a promoter, together with Sir Robert Peel, of factory reform in England, and a philanthropist whose heroic

efforts arrested the degeneracy of the English working classes.

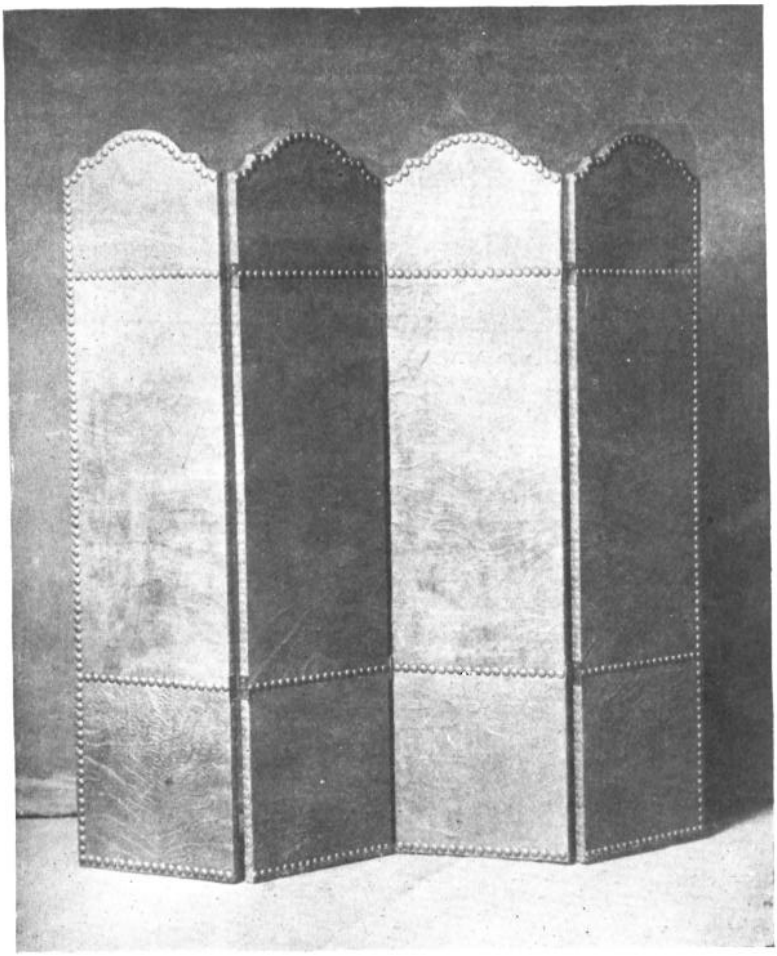
The series thus far presented in "The Craftsman" offers: William Morris, the reviver of mediaeval handicrafts; Ruskin, to a degree, the source of the nineteenth century English aesthetic movement; "The Gilds of the Middle Ages," under whose influence the handicrafts rose to a perfection never before or since attained; and "Notes from the History of Textiles." A natural sequence will therefore be found in the consideration of the factory system and of legislation relative thereto.



Settle and large arm-chair in dark fumed oak



Fireside settle, with cupboard ; cupboard, with leaded glass ; roan-skin seat cushion and pillows



Four-fold screen in "United Crafts leather," showing all natural marks of skin

THE DISTAFF

Idyl XXVIII. of Theocritus of Syracuse, Third Century, B. C.

THE following Idyl (as the word literally signifies: a little picture of manners and customs) is here introduced as an early tribute to one of the most important of the handicrafts. The Syracusan poet, Theocritus, about to sail from his birthplace to Miletus, a city of Asia Minor, at that time famous for its wool industry, chooses an ivory distaff, as a gift for the wife of his friend, a learned and wealthy physician. Under cover of an apostrophe to the distaff, he pays a delicate compliment to his future host and hostess, in a manner wholly worthy of the accomplished court-poet that he was. But this mere grace of diction is not the quality which gives a permanent value to the Idyl. Its right of admittance to the history of textiles is generally recognized, and it is most frequently quoted, as showing the esteem in which the crafts of spinning and weaving were held, among the peoples of the Mediterranean coasts, even after the decay of the political systems which had made them great, and after luxury had seized them with its enervating and disintegrating tendencies.

O distaff practised in wool-spinning, gift of the blue-eyed Minerva,
Labor at thee is fitting to wives who seek the good of their husbands!
Trustfully come thou with me to the far, famous city of Neleus,
Where stands the temple of Venus uprising 'mid reeds green and pliant.
Thither we ask of Jove his gift of smooth seas and favoring breezes,

So that (O grateful sight!) Nicias, our friend, may greet and be greeted,
Nicias, sacred scion of the charming and lovely-voiced Graces.
So that, O distaff of ivory cunningly fashioned, I give thee
Into the hands of the wife of Nicias, the skilled and the learned!
So shalt thou weave mantles for men and transparent tissues for women.

Twice in each year shall mothers of tender lands yield up their soft fleeces
To be shorn for Nicias' fair wife, famed for her beautiful ankle,
Known for her industry also, and rich in all feminine virtues.

Nor would I give thee out of our land to women careless and slothful,
For native art thou of Syracuse, that city planted by Corinth
Deep in the marrow of Sicily, vineyard and oil-bearing island.
Now well shalt thou guarded be in the house of a man wise and gentle,
Skilled in medicine-making and most potent to ward off diseases;
Now shalt thou dwell in Ionia, in the lovely city Miletus;
So that Nicias' fair wife, Theugenis of the beautiful ankle,
May in the choice of a distaff be favored above her companions.
So may she remember her friend, remember thy song-loving giver,
And at thy sight, O my distaff, shall one woman say to another:
Surely great grace lies in trifles and all gifts from friends are most precious!

English version by I. S.

NOTES GATHERED FROM THE HISTORY OF TEXTILES

IN order to picture with strongest expression the most primitive times, reference is constantly made to "the days when Adam delved and Eve span." Indeed, the arts of spinning and weaving take rank only just below that of agriculture in point of antiquity: which fact alone would prove their relative importance. After a rude provision against hunger and stress of weather, the first step toward domesticity and civilization made by a people is found invariably to be the fashioning of clothing: the substitution of textile fabrics for skins or plaited vegetable fibres. And always, if we search beyond authentic records, we come upon myths or picture-writings rich in allusions to those crafts which are the subject of the present paper. The Greeks, with fine imaginative sense, condensed centuries of economic history into the representations of their virgin goddess of wisdom, when they pictured her beneath the olive-tree, which she was fabled to have created for the good of her chosen people; or better, as holding the distaff, that first and chief instrument of civilization: standing for the foundation of the home, the establishment of peace and industry to the exclusion of blood-violence and indolence, the formation of the social bond, the conception of trade and commerce.

The crafts of spinning and weaving, modified and complicated by inventions, and transferred in modern times, as to their exercise, largely from man to machine, were long, as is too well known to need comment, distinctively feminine employments. This to the degree that the distaff came to be accepted as the symbol and synonym of woman. "The *distaff* is speaking" is the comment of a tyrannical German or Scandinavian peasant, if his wife dares to lift her voice in opposition to household laws framed by the masculine wisdom.

"The *distaff side*" is a term of frequent occurrence in old English genealogical records, referring, as is evident, to the female line of descent. Indeed, all literature and history from the Hebrew Scriptures and the Songs of Homer to the tales of the Puritans have celebrated women, either virtuous or frail, who have plied distaff and spindle for the fashioning of marvels of handicraft. Spinning was exclusively accomplished by women, and was often carried on by large numbers of workers in common, as if the factory system had been established on the shores of the Mediterranean three thousand years ago. So it is evident that the king's daughter, the peasant-woman and the female slave were pledged by their sex to the same employments, and separated by no sharp line of demarcation such as today divides the self-supporting woman from her affluent, or aristocratic sister. To these women, who by the very nature of their occupation, were a civilizing force, the world owes a debt of gratitude not often recognized. For they were the unconscious propagators and agents of history. That mood or state best described as mental isolation, which is the accompaniment of manual labor, kept their ideas sharply defined, and shut out from their minds those rapidly succeeding impressions which confuse and blot one another until chaos ensues. The spinners and weavers, plying their fireside industries, no less than the rhapsodes of Greece and the Roman singers at the cross-roads were the sacred keepers of tradition. The distaff, equally with the stylus, is the symbol and emblem of history. The muse Clio, helmeted, shod with the tragic buskin, and raised to heroic size, no more fitly represents the story of man's endeavor, than does the gentler, more humanly fair figure of the primitive home and hearth,

"Who as she plied the distaff,
In a sweet voice and low,
Still sang of great old houses,
And fights fought long ago."

And in countries where the

pressure of modern times is least felt: in the pastoral lands of the Orient, in the poor Italian villages, in the mountainous districts of Spain, the original types of these spinners are still preserved. As an example, one may recall the huts scattered about the ruins of the ancient Herculaneum, at the doors of which, on any bright day, there assemble groups of spinning women, from the blooming girl measuring the flaxen threads which are to be woven into the household linen of her marriage portion, to the aged grandmother, sinister, scarred, seamed: in every line and feature a replica of Michelangelo's spinning Fate.

In passing, one simple fact regarding these humble workers is to be emphatically noted. It would seem at first that their existence and interests were a nameless part of that ephemeral, inconscient life which Nature scatters with apparent carelessness throughout that favored and lovely region. But upon examination, the thoughtful observer discovers that their labor is really significant; since with appliances differing little, or not at all from those in use in Homeric times, with no labor-problem confronting them except that of satisfying their personal needs, they produce fabrics perfect of their kind: thoroughly honest in material, strong in texture, made not to sell and to consume, but rather to use and to keep. Gradually, these observations of fact resolve themselves into an argument for economic reform: that is, a return to simplicity in method, the abolition of over-complicated mechanical contrivances, and, above all, the liberation of the craftsman from his present condition of servitude, which results from dividing the steps of manufacture into parts so insignificant that no one workman may be said to possess his trade; from robbing the human being of his individuality by unduly increasing the power and multiplying the functions of the machine; by blighting the imagination of the laborer in forcing him constantly to consider a part rather than the whole of the plan upon which he is engaged, and by depriving him of that keen,

exquisite pleasure which is derived from the sense of authorship,—a pleasure old as Creation itself, and repeated whenever an artificer looks upon his finished work and "sees that it is good," whether that work be a world or a pin.

Returning from this modern digression to our early spinners and weavers, we find that their crafts were often carried over into the fine arts by distinguished women who recorded in their needle work the history which they, with their husbands and lovers, helped to make. Helen, the exciting cause of the first triumph of European civilization over Asiatic despotism is represented, in the Iliad, as engaged in embroidering the combats of the Greeks and Trojans; the emotions of Aeneas, as he viewed the Carthaginian wall hangings wrought with the great scenes of the Trojan War, are familiar to every school boy; while two thousand years later, Queen Matilda and her maidens similarly pictured the events of another turning-point in the world's destiny: preparing in the Bayeux tapestry, through the medium of a feminine art, an historical document stronger, clearer, less susceptible of misconception than the words of the clerkly chroniclers who described the Norman Conquest of England.

The crafts of spinning and weaving, which, as we have seen, long constituted at once the distinctive labor and honor of woman, are plainly dependent upon agriculture. This fact, together with its logical consequence—the interdependence of the sexes—has never, perhaps, been so well symbolized as in a carving upon an old sarcophagus in the Church of Saint John Lateran, in Rome, wherein the Eternal Father is seen as the Arbiter in the cause of Labor, giving to Adam an instrument of tillage and to Eve a distaff and spindle. Following this thought, it is interesting to study the primitive industries side by side; dividing the ancient world into sections, or belts, according to the animal or vegetable

products which furnish the raw material for the exercise of the crafts of spinning and weaving. These same divisions practically hold good to-day, and in the first, we find many of the most highly civilized portions of Asia, together with Germany, Gaul, Italy and Spain: the raw material being itself classified under the wool of sheep and beavers, the hair of camels and goats. In the Far East, we find a vast region, whose people unknown to the Indo-Germanic nations, clothed themselves in silk. Along certain rivers, like the Nile and the Rhine, and always in low-lying lands, the textile fabrics produced were varieties of linen. In larger tracts, north of the wool division of both Europe and Asia, hemp constituted the raw material furnished to the feminine industry. Lastly, the great expanse of India produced, from immemorial times, the raw material, cotton, from which were spun light fabrics, the processes of whose manufacture were handed down intact from generation to generation, so maintaining an invariable standard and quality.

To thus distinguish the races of men by differences in the material of their garments seems at first an unusual and meaningless characterization. But upon second thought, the justice and fitness of the scheme is quite apparent. The highest civilization belonged in antiquity and is still peculiar to the habitual wearers of sheep's wool. The mental qualities of the Chinese and their similars, fine and exquisite, but ill-adapted to the practical work of the world, have their parallel in the silk and tissues with which they delight to clothe themselves; while a like comparison may be made between the Hindoo mind and the tenuous web of the fabrics wrought in the regions where the doctrines of Buddha are dominant.

From each of the great divisions which we have indicated, it will not be without interest to note a few facts regarding the raw material, the finished fabrics and the means of cultivation, production and man-

ufacture there devised by human intelligence. In this brief survey, the elevated regions of Central Asia first claim attention as being, without doubt, the home of the primitive stock of the entire race of domestic sheep, just as they were the lands from whence migrated the parents of the modern European races of men. And the coincidence is not accidental, as the management and use of sheep have, from the beginning of history, formed a striking feature in the condition of man. That these animals are not natives of Europe is presumed from the fact that their remains have never been identified among the bones of quadrupeds found in ancient caves in any portion of the continent.

The wool produced in the countries of the Orient was utilized in the densely populated territory at the eastern extremity of the Mediterranean, especially by the Phoenicians, whose intelligence and enterprise as craftsmen and merchants have been paralleled once only in history—and that by the Florentines of the Middle Ages. To the great commercial and industrial cities of the coast, like Tyre and Miletus, the wool-growers of the European districts beyond the Black Sea brought their products, as well as did the shepherds of Asia. Miletus, from the sixth century B. C., was most famous for its fine snow-white wool derived from sheep reared in the interior of Ionia, as may be learned from the Greek and Roman historians and poets, whose works teem with allusions to Milesian fleeces, carpets and shawls, much as modern writings contain references to the fabrics of Cashmere and Delhi. "To recline on Milesian fleeces" was the ancient parallel of our own expression "to lie on beds of down," and from our present knowledge of the art-crafts of classical times we may believe that these fabrics merited the praise bestowed upon them. "The lovely Ionian city," as Theocritus names Miletus, in his idyl, "The Distaff," also became the mother of a colony which, planted in a district of the country now called Circassia, attained a rank

in the manufacture of textile fabrics second only to that of its metropolitan city: gradually obtaining trading relations with tribes representing several hundred differing speeches, and bringing into close and peaceful contact the most refined and the most uncultured peoples. From this one instance, therefore, is apparent the value of the crafts of spinning and weaving, not alone in the economic role which they necessarily fill in the modern world, but, far more, as civilizing agents of the first importance. And if we review in succession the peoples who have established and protected these industries, particularly when applied to woolen manufactures, we shall find, in each case, the same happy results; whether we recall the Netherlanders who owed to them their populous, wealthy towns, in which countless looms, busy for centuries, lapsed into idleness only when wars and religious dissensions had decimated the burghers; or yet again, if we instance the rapid increase in wealth secured to England through the protection of the wool industry by Edward III. and his queen, Philippa of Hainault, or if, finally, an example be made of the Florentines who supplemented and improved the work of the wool crafts of the Netherlands, with a so signal degree of success that a little people of artisans and shopkeepers rose to an almost controlling influence in the finance and the diplomacy of the world.

Again returning to ancient history, we find the Greek colonies of Lower Italy producing the finest white wool, similar to that of Miletus. To assure this quality of product, the sheep were reared in the huts of the shepherds, and were kept covered with skins, in order that the first delicacy and softness of the fleece might be retained in the adult creature. The animals not so treated were known under the name of "hairy sheep," and from these came brown and reddish wool, probably identical with the naturally colored products which are often to-day employed in the weaving of Oriental rugs. The white wool was used in the fine, closely-

woven fabric from which were fashioned the togas of the citizens, the creamy whiteness of which was jealously guarded by their wearers. The brown and grayish products were wrought into coarse textures which supplied clothing for the populace: so making of Rome, especially in its densely-crowded artisan quarters, the sombre, grave, forbidding city so vividly described by Crawford in his "Ave Roma."

As for the Western provinces of the Empire, they produced only indifferent wool and poor textiles. The "Germania" of Tacitus notes an abundance of flocks, together with an absence of skill in sheep-breeding; while the Gallic raw material, resembling hair more closely than wool, furnished the stuff for the hooded garments which were used by the native people, and also exported to the capital, there to be worn by slaves and needy dependents, for "a fence from wet," as appears from a satire of Juvenal. In Britain, the people of Kent, who were of Belgic origin, and more refined than the original inhabitants, first acquired the arts of spinning and weaving. But, in the fourth Christian century, sheep-raising was actively pursued in all parts of the island, as may be learned from a congratulatory address presented to the emperor Constantine, upon his accession to power at York; in which document the writer describes the country as rich in "an innumerable multitude of tame flocks, distended with milk and loaded with fleeces." But over the western countries already mentioned Spain held an undeniable advantage. Its varied surface came to produce a corresponding variety in the breeds of sheep, from the larger animals of the richer plains to the smaller races of the higher mountains. Furthermore, the course of history as developed in the peninsula co-operated favorably with the physical qualities of the country. The races of the wool-bearing animals were advantageously crossed and modified by the successive introduction of distinguished and differing species: first, from Asia, by the very early

Phoenician colonies in the region of the modern Cadiz; secondly, from Africa by the Carthaginians, during their brief possession in the third century B. C.; thirdly, from Italy by the Romans, during their dominion of six hundred years; lastly, again from Africa by the Moors who maintained a foothold in the country for nearly eight centuries. The various species, modified by crossings, climatic influences and food, finally resulted in the large, long-wooled sheep of the plains often naturally colored brown or black; the mountain sheep with fleeces of widely differing fineness and color; among these the merinoes, which held the first rank in all Europe until the high development in our own day of the sheep of Saxony and Silesia.

To separate the history of the crafts of spinning and weaving from that of the raw materials upon which they are exercised, is a difficult task; especially if the consideration be not limited strictly to the present day, when the means of transportation are so many and rapid that a material produced in any given country may be utilized at the antipodes without serious loss of time. Therefore, it will be well to note things of special interest, as they occur in the history of the same crafts applied to materials other than wool; afterward, to gather an idea of the factory system as developed in the eighteenth and modified in the nineteenth, and as probably about to become in the twentieth; finally to note the evolution of the craftsman with a view of understanding and furthering that which makes for the welfare of those who, together with the tillers of the soil, form the class most of all necessary to the continuance of government, of society and of human life itself: a truth which was recognized ages before the birth of political science; when Plato conceived his ideal republic, with the artisans in the commonwealth corresponding to the primitive passions in man; and when Rome gave to the same class the significant name of *proletarii,* that is, the class necessary to the State for the production of offspring.

In accordance with the plan indicated, the silk industry should next claim attention. The rearing of silk worms and the use of the filaments composing their cocoons for the making of costly fabrics were first practised in Oriental lands, India, Persia and China (as we now know) being most skilful in these processes. In the last named country, the tradition of the silk culture is carried back into the mythological period, and is co-aeval with the origin of agriculture itself. The two pursuits, husbandry and silk-manufacture, form the subject of one of the revered and ancient "Sixteen Discourses to the People." And it is there observed that "from ancient times the Son of Heaven (the Emperor) directed the plough; while the Empress planted the mulberry tree;" and that these exalted personages, not above the practice of labor and exertion, constantly offered an example to all men, "with a view of leading the millions of their subjects to be faithful to their essential interests."

From India, as it is believed upon the authority of a court historian of the Byzantine Empire, silk-worms were secretly brought to Constantinople in the sixth century A. D., the worms being concealed in the hollow staves of two commercially inclined monks. The same historian (Procopius) relates in his secret history, which is the contrast of his official annals, the story of the ruin of the silk industry and trade in Constantinople and Tyre, through the greed and blindness of the government. The Emperor Justinian, actuated at first by a praiseworthy economic impulse, succeeded, through the aid of the monks, in securing raw material free of the excessive charges demanded by the Persian monopolists. He fostered the breeding of silk-worms, and, consequently, the culture of the mulberry tree. Then, having benefited his subjects by the development of an attractive and lucrative industry, he proceeded, like many a modern official, to deflect the profits of the great enterprise from public channels to his personal enrichment.

By a series of tyrannical acts directed alike against the manufacturers and the merchants of silk fabrics, he effected that the industry should be thereafter conducted solely by the Imperial Treasury; thus apparently protecting the interests of the trade, while he resorted to the basest means of causing its ruin. His schemes were favored and advanced by two accomplices of power and great subtlety: one being the imperial treasurer himself; the other, the Empress Theodora, who often reverted from the princely role, which she tried so hard to assume, to the low, immoral instincts of the class and profession from which she had been elevated through the caprice and infatuation of the emperor.

From the eastern shores of the Mediterranean, the silk industry spread into Greece; to which country the breeding of the worms and largely the manufacture of the fabric were confined, until the middle of the twelfth century. At that time, the king of Sicily, having seized Corinth, Thebes and Athens, gained control of a large number of silk-weavers, whom he transported, with the apparatus and materials necessary for the practice of their craft, to Palermo, where he forced them to reside. From Sicily the industry was extended to Spain and to all parts of Italy; the first manufactory in the latter country being probably the one established in the Tuscan town of Lucca. There, the weavers, obedient to an impulse always peculiar to their craft, agitated political and economic questions incident to the time, and, for the reward of their pains, were ejected from the city, in the early years of the fourteenth century. Dispersing, they carried their art to Venice, Florence, Bologna and Milan, in all of which towns it is yet to-day more or less active. Always interesting to observe, the industry is more than usually attractive, as it is practised in the Lombard Plain. There, nature really justifies the expression: "a smiling landscape," for, as it appears in early June, sunlight, soft color, and picturesque objects combine to make a whole

enchanting to the traveller who, for the first time, visits this region of exquisite beauty. In the vicinity of Milan, as one approaches that city by the Lombard-Venetian railway, from the east, as far as the eye can reach, there lies an expanse of young verdure, suggesting by its indefinable and yet very evident quality the words of Carducci: "The divine green silence of the plain." The rice-fields, with their tender plants of short growth, are tended by comely peasant-women who stoop gracefully to their task. Then, far and near, stretch lines of the famous poplars which received their name from this district of Italy, and which are still garlanded with vines, in accordance with the practices of husbandry prevailing in the times of the poet Horace. Thickly scattered among the tall poplars, are short over-spreading trees bearing broad tri-lobed leaves not unlike those of the grape-vine, massed in a heavy crown. Amid this dense foliage, a man is often seen standing at the junction of the trunk and limbs of the tree, and carrying a large open bag, much like that of a postman and worn in the same way. In his right hand, he grasps a knife which he manages with short decisive strokes: at each one severing a number of leaves which, directed by his motion, fall into the open receptacle. The tree is a mulberry, and the leaves are destined to feed the silk-worms, of which there are extensive cultures in the vicinity and suburbs of Milan. The city proper also possesses a large artisan class employed in silk manufacture, and proud of its historic past; since these craftsmen, turbulent and revolutionary, according to the traditions of spinners and weavers, fought in the insurrections against the tyranny of Austria, when that power held Lombardy, at the middle of the nineteenth century, and thus made themselves a factor not without importance in the cause of Italian unity. The beauty of the Milanese manufactures in silk is too well known to warrant comment, but the color-note lent to the aspect of the city through the display of exquisitely tinted fabrics forms a distinctive mem-

ory in the mind of the traveler,—and one not unworthy to be associated with the great white cathedral and the Scala theatre.

In the history of the development of silk manufacture, France naturally follows closely upon Italy. As a consequence of the French expeditions into the peninsula, during the wars of the fifteenth century, white mulberry trees were extensively planted in the valley of the lower Rhone. The culture was afterward carried throughout France, the gardens of the Tuileries in Paris alone receiving from fifteen to twenty thousand plants. But it was under the administration of Colbert, the brilliant, far-seeing minister of Louis Fourteenth, that the silk manufacture, together with the other great industries of modern France, received the impetus which it has never yet lost. To-day, the trees producing the necessary food of the silk-worm are found mingled with olive groves, throughout the Southern provinces, and following the course of the Rhone as far northward as Lyons. Again, in this city—as famous in modern times for its beautiful, costly silk manufactures as were Venice and Florence in the Middle Ages—we find the spinners and weavers restless under authority, and even madly anarchistic. The traveler having mounted to the site of the Roman forum, and overlooking the panorama of the city with its two historic rivers and its picturesque quays, is turned by his guide toward a densely populated, squalid quarter, designated as "La Croix Rouge," which is the breeding-place of plots against governments, sovereigns and capital. These lodgings and wine-shops harbored the "group" who sent forth the assassin of President Carnot, in 1894, and they to-day teem with the similars of Bresci and Czolgosz. Thus the craftsmen of Milan, of Lyons and of our own Patterson spin their fatal webs which reach over the Alps and across the Atlantic; mercilessly involving their victims, and indifferent to the peril that they may be caught in their own toils.

Passing from the history of the silk to that of the cotton industry, we find that the latter, as a great modern English and American enterprise, is best treated in connection with the rise of the Factory System. But a few points of antiquarian interest may be rapidly noted. This industry has always been characteristic of India, and the father of profane history, Herodotus, quaintly records that "the Indian trees bear fleeces as their fruit, surpassing those of the sheep in excellence and beauty." Tents or awnings of cotton, in the Augustan age, protected the Roman Forum from the rays of the sun, in order that the persons engaged in lawsuits might not suffer sun-stroke. In the Middle Ages, the beauty of Indian cotton fabrics excited the admiration of the Venetian and Portuguese navigators, and on the discovery of the New World, cotton was found to be the principal clothing material of the Mexicans. In India, the cotton manufacture is not confined to a few large towns or districts. It is universal, and the growth of the raw material is nearly as general as the production of food. Everywhere the women spend a portion of their time in spinning, and almost every village contains its weavers who supply the inhabitants with the scanty clothing required. Being a domestic manufacture conducted with the most primitive apparatus, it demands neither capital, mills, nor an assemblage of various crafts. But the methods employed are worthy of attention, as being triumphs of patience and skill. The yarn spun by the dextrous use of finger and thumb, imbibes, during this process, a degree of warm moisture which incorporates the separate threads more perfectly than can be done by any mechanical means. The fine finish and the durability thus assured have given rise to a popular belief in the superior merits of Indian cotton, which, however, being subjected to scientific examination, is proven the inferior of the best grades produced in the United States. So that all praise is due to the spinner who, in her own way, equals the manual

dexterity of the Hindoo weaver, whose acuteness of touch, flexibility of finger, and hereditary instinct (by caste-laws he is bound to the occupation of his ancestors) give him an unique place among his fellow craftsmen throughout the world. And this in spite of little or no aid from science, and in an almost barbarous condition of the mechanical arts.

In view of the beauty and the small cost of Indian cotton fabrics, a period occurred when the manufacturers of all European countries were fearful of ruin through competition. In the seventeenth century, the Dutch and English East India Companies imported these fabrics in large quantities; while the self-deceived patriots and pamphleteers of the day made their moan against the ruin of home industries. In the year 1678, a pamphlet was issued in England under the title: "The Ancient Trades Decayed and Repaired Again," in which the author bewailed the interference of the imported cottons with the home manufactures of woolens; recommending that a very high impost be placed upon the former articles. The same writer favored the prohibition of stage coaches, on the ground of the injury which they did to the hosts of the wayside inns, by conveying travelers too quickly to their places of destination, and at too slight expense to themselves. From these two instances may be gathered an estimate of the economic sentiment and knowledge of the period, which, after all, differ only in degree from many actually existing prejudices. At the period mentioned, even so sagacious and far-sighted an author as Daniel Defoe did not escape the general error that it was not merely injurious to the English woolen and silk industries, but also a *national evil* "to obtain clothing cheaply from abroad, rather than to manufacture it expensively at home." This opinion expressed in "The Weekly Review" edited by the author of Robinson Crusoe, compares very unfavorably with many opinions upon trade, credit and currency, which are contained in

the same periodical, and have a distinct flavor of modern economic thought. Furthermore, in extenuation of Defoe's illogical reasoning, it is but just to say that they reflected not only the popular sentiment, but also the governmental ideas of the time; since, in the year 1700, nearly a decade before the utterance quoted from "The Weekly Review," an act of William III. prohibited the introduction into England of Indian calicoes, muslins and silks for domestic use, either as apparel or as furniture, under a penalty of two hundred pounds sterling to be levied upon the wearer or the seller. As we know, the English woolen industries survived the perils occasioned through the influence of the East India Company. They sustained also the far more formidable competition of the home cotton manufactures, when it was gradually forced upon them toward the beginning of the nineteenth century. The making of fine muslin was attempted in both Lancashire and at Glasgow, about the year 1780, with weft spun upon the jenny; but the attempt failed, owing to the coarseness of the yarn employed. When, however, the mule was brought into general use, a few years later, both weft and warp were produced sufficiently fine for muslins. And so quickly did the weaver profit by the improved quality of the yarn, that no less than five hundred thousand pieces of muslin were manufactured in Great Britain in 1787.

Simultaneously with the rise of the English cotton industry, the Indian craft declined, until, in 1831, the manufacturers of Bengal presented a petition to His Majesty's Trade Council, in which document they set forth the ruin of the home industry and prayed for relief from the excessive imposts levied upon their fabrics in Great Britain; alleging the injustice of fixing customs duties upon the Indian fabrics, while the cotton cloth of English manufacture was admitted into their own province free of taxation. From this time, therefore, as a commercial enterprise, the Indian manufacture gradually failed. But as a fine-art craft and a village industry, it

can never cease to exist, as long as the Hindoo hand retains its cunning, the Indian trees "bear their fleeces," and each separate hamlet seeks to supply its own necessary articles of use and consumption.

There now remains to be mentioned but one other raw material: flax, which is largely employed in the crafts of spinning and weaving. Its use is most ancient, since it appears in the hieroglyphs, is found in the swathing-bands of the mummies, and furnished the substance of the textile from which were fashioned the garments of the priests of the great goddess Isis in Egypt. It best flourishes, as has been already mentioned, along water-courses and in low-lying lands: portions of Russia, the Netherlands, Northern and Southern France, and certain localities of England being especially adapted to its production. Its manufactured product, linen, constitutes an important branch of industry and trade in England and Ireland, which can be included in the notes upon the factory system now to follow.

This scheme of labor, although largely a growth of the eighteenth century, and a consequence of the application of machinery and steam power to industry, was not unknown in the ancient civilizations, where we find the factory under the disguise of the slave-shop. In the Middle Ages, the factory system may be said to have developed with the gilds, since it is recognized in the constitution of the workshop, with its master-craftsman, its journeymen and apprentices. But the first factory, in the modern sense, was one established for the production of silk fabrics, by Sir Thomas Lombe, in Derbyshire, in 1719.

Throughout the eighteenth century the system extended itself, through the localization of certain great industries; the separate processes of a given manufacture, which formerly had been conducted as domestic labor, being brought together and carried on in buildings adapted to the purpose. In these places of

torture were now gathered men, women and children, who worked the longest hours possible with the most meagre wages, and under the worst conditions of sanitation and morality. These were the days of absolute *laissez-faire,* when the free competition of individuals was carried to its limit. No factory laws existed and the condition of the employed depended solely upon the disposition and temper of the employer. The laborers of England were as wretched and hopeless as in the reign of Edward Third, and no Black Death came to lighten their misery by halving their numbers. They worked like animals, being, in truth, yoked to machines, and they were housed worse than their brothers of the stable and the stye. As time passed, women operatives replaced men, wherever such substitution was possible, and children women; such measures assuring a large increase of profits to the capitalists. Pens were established on the banks of canals, in which boys and girls were collected from the scattered cottages, country alms-houses and town streets. They were seized by force and whipped by the bargemen to the very doors of the merciless mills. Infants of five years were allowed to work in cotton factories, from five o'clock in the morning until eight at night, and children of eleven were confined throughout the working-day in bleacheries, in an atmosphere averaging one hundred twenty degrees. In addition to this severe labor which they accomplished under the most aggravating conditions, they often walked a distance of twenty miles a day, to and from the factory, and many records exist of children too young to be trusted alone, who were literally driven by their mothers, at the dead of night, to begin their hours of torture.

The rising industrial system so conducted, occasioned the most unhappy results for England. In the closing years of the eighteenth century, half the children born in the manufacturing centers died before arriving at maturity, and those whose tenure of life was

the strongest, were physically exhausted long before their entrance upon the real duties of life. There followed a notable decrease in the height of the adult population and indications of degeneracy caused the rejection of large numbers of recruits offering themselves for the army and navy. Indeed the condition of the working classes throughout Great Britain during the latter part of the eighteenth and the early years of the nineteenth century would be incredible, were it not well attested by the most reliable witnesses.

But in the economy of Providence an evil is not permitted to be lasting. The free competition of individuals was found to be most harmful in its results upon the people. The great questions arose: Has the Government the right of interference? Shall society suffer that individuals may profit? Shall the next and succeeding generations be weakened that private estates may be enlarged?

These momentous questions oppressing the public mind, were first agitated in Parliament by Sir Robert Peel, himself a master manufacturer, who had risen to wealth, power and station through the new system of labor. He was therefore fitted by an experience to understand the evils which he chose to combat and his Bill, presented in 1802, had for its object to interfere legally with the natural tendencies of unrestricted competition in the labor of human beings. It was entitled:

"An act for the preservation of the health and morals of apprentices and others employed in the cotton and other factories."

This bill was the forerunner of later and more comprehensive Factory Acts, introduced in successive Parliaments by Sir Robert Peel and the followers of his initial step. From time to time, the working classes obtained new concessions and a larger freedom, until in 1878, the laws regulating the terms of their em-

ployment were thoroughly codified, the workman being thereby given the widest freedom and the employe restricted within the narrowest limits of personal power consistent with the spirit of the times.

To the name of Sir Robert Peel must be joined that of Robert Owen, the apostle of factory reform. He was like the great parliamentarian, a man skilled in economic and philanthropic questions. But his wisdom came from his first experience as a workman, rather than from that of his successful later life; for beginning as a child cotton-spinner, he rose, at the age of nineteen, to be the overseer of five hundred operatives. And although the manufacturer, his employer, was a man not unkind to his workman, yet the system so overpowered individual will and effort that the evils were almost intolerable. When the young Owen had made himself the ablest member of his craft in the Limited Kingdom and gained acknowledgment of his great administrative ability, he turned to remedy the abuses whose enormity he had learned to understand during his experience as a child laborer. He consecrated his mature powers and his Christ-like sympathy to rescue English children who had known no cradle but the hut or the cellar, and who, except for him, could have looked forward to no rest on the hither side of the grave. The spirit of Robert Owen walked abroad, stirring alike Parliament, economists, people, and, at last, mingling with the new English art. Millais and Holman Hunt of the Pre-Raphaelite Brotherhood, each condensed within the narrow limits of a canvas the story of the Divine Carpenter; giving it a modern significance which compelled attention, even though it excited the ridicule and scorn of the critics and London society. The earlier of the two pictures was that of Millais, who named his book: "Christ in the house of his parents," a title which was often changed into that of "The Carpenter's Shop." At the time of its first exhibition, a critic, in Charles Dickens' "Household Words,"

wrote of it a detailed description which is a grim commentary on the then attitude of London toward its poor. The critic condemns the picture as mean, odious, repulsive, revolting; as reminiscent of the gin-palace, the hospital and the East End. To-day, no journalist would dare so to express himself, for the claims of Whitechapel to consideration, pity and assistance are broadly recognized. And Millais, like Robert Owen, pleaded the cause of the child-laborer, when he showed the little Christ in the company of the older, distressed and besotted carpenters, with his hand sorely wounded by his tools, seeking aid from his parents. Another phase of the same subject was treated in the second picture: Holman Hunt's "Shadow of the Cross," in which the interior of the carpenter's shop is again displayed. This time, the innocent victim of society is represented as a mature man, with his foot treading a long serpent-like shaving which trails its length across the floor, and his arms stretched out in weariness, projecting the shadow of the Cross: that other name for the daily crucifixion of toil.

In our own day of science—social as well as physical—the rights of the workman to the free gifts of nature are recognized. Darkness, dirt, sewage and smoke are no longer regarded as the fit environment of the laborer, and the time of his liberation from the town of weary, sickly drudges, immersed in dust and germs is near at hand. Science, in the form of free sanitation, good food, pleasurable thought and recreation, is to lead him back to nature.

The factory system, with all its crying abuses, is now seen to have been a necessary step in social evolution. Indeed, it has been characterized by Mr. Carroll Wright, the United States Commissioner of Labor, as far in advance of any previous system of production.

The evils of the earlier days he believes to have been the results of labor which had be-

come pauperized in the agricultural districts and, in his opinion, the factory has not so much destroyed the home, as it has enabled the members of broken families to earn a livelihood. The cottage of the old-time industries—continues Mr. Wright—was not the ideal home pictured by poetry. History calls it a hut, and there the looms and the wheel disputed with the inmates for room. No surveillance of manners or morals was possible, and isolation tended toward the development of vice. The factory by giving regular employment to the unskilled and the ignorant, becomes an active power for the elevation of the race. It does not, as has been alleged, develop degeneracy in the skilled, but is rather an educative means for the untaught. It is easily the best scheme of labor which has been yet devised.

From this favorable view as contrasted with the darker aspect of the question but one deduction is possible. The present labor system, like all human expedients, is a mingling of good and evil. It is temporary to a degree, and in order to be made useful, it must be constantly subject to change, like life itself. It must accept the now waiting and transforming touch of science. Meanwhile the question what will be the next stage in the evolutionary series: Slave-shop, workshop, cottage, factory, is one that must stir the hearts of all men to whom "nothing that is human is foreign."

REVIVAL of ENGLISH HANDICRAFTS:

The Haslemere Industries

Modern civilization prides itself on its power machinery and devices for saving labor and increasing production. Our own country leads the world in this class of inventive ability. It is pleasant, therefore, to those who have feared that the hand might forget its cunning, to know that in the very midst of this busy factory life there are places where the old handicrafts of long ago are being re-established.

Quietly, through England, Ireland, Scotland and Wales, such crafts are getting a firm foothold. The advent of machinery and steam had well nigh crushed them out, but in far quarters almost inaccessible to the busy manufacturing centers and dependent on their own resources, the spinning wheel, the loom, the simple tool had never ceased, and were ready to be called into active work again.

For thirty years this revival has been slowly gaining force. Gradually a keen desire for a general renewal of the ancient handicrafts was felt.

Through the length and breadth of the British Isles, in small hamlets, in parish rooms, in distant lonely cottages, and even in great rushing London and Birmingham the hand began again to work with the old time tools.

Many interests united in this impetus toward handwork. Ruskin, Morris, Burne-Jones, and others, used their efforts for an art uplifting and joyful, where hand, heart and mind would work together; earnest women of the highest rank gave their influence to the movement to help increase the incomes of their poor tenantry; social workers called for handicrafts that the people might keep happy and employed in the home villages and not rush into the crowded cities; philanthropists saw herein the opportunity of giving the blessing of happy work to the lame, the blind, the aged who are obliged to pass the weary hours idly.

So widespread was the movement that a combined action of all of these workers was felt advisable, and about eighteen years ago the *Home Arts and Industries Association* was formed with its headquarters at Albert Hall, London. In this interesting Association are banded together handworkers of every description and aim. It may be but a class of a few little children making baskets in some lonely parish, or it may be an industry with its work placed on a businesslike footing, which asks for patronage not on account of the needs of infirmities of the workers but for the intrinsic value of the product. All are united, however, from the least to the greatest in creating higher ideals in the people, in making good conditions of labor, and in bringing happiness through interesting, useful handwork.

It is to the class known in the Home Arts and Industries Association as a "developed industry" (regularly competing in the open market) that the *Weaving* and *Tapestry Houses* of Haslemere belong.

A more ideal setting for a village industry, whose avowed purpose is to make good

hand-made materials under ideal conditions, could scarcely be found. In the southwest corner of Surrey, in a deep valley between wooded cliffs, is the little town which straggles picturesquely in winding lanes like wandering vines up the steep slopes. In summer, in the near distance, the eye traverses stretches yellow with gorse and broom, and purple with heather up to the high, dark ridge of Hindhead. On the top stands high against the sky the cross which marks Gibbet Hall, where the execution of a sailor's murderers once took place. Below the cross is a romantic lonely hollow called the Devil's Punch Bowl, around whose rim Smike and Nicholas Nickleby, as they were going from London to Portsmouth to seek their fortune, walked and read the description of the sailor's murder.

The atmosphere of Haslemere is artistic and literary. Here George Eliot lived on the Shotter Mill way, Tyndall built high on Hindhead and Tennyson's home looked out on the Blackdown. Artists and writers still gather here.

The village keeps its mediaeval appearance. The cottages of the people are low, with slanting tiled roofs. These ancient hand-made tiles of many varieties are well known to architects and antiquarians. The lanes are often so steep that the sidewalk is only on one side, while a high, abrupt cliff rises on the other. The sidewalk gradually ascends above the roadway and the cottages open on the sidewalk with a steep staircase descending to the road. This gives a curious and picturesque effect to the old stone cottages and the half timber houses with their overhanging stories. The workers in the Haslemere Industries live in such homes as these, surrounded from birth with charming nature and the simple artistic handwork of man.

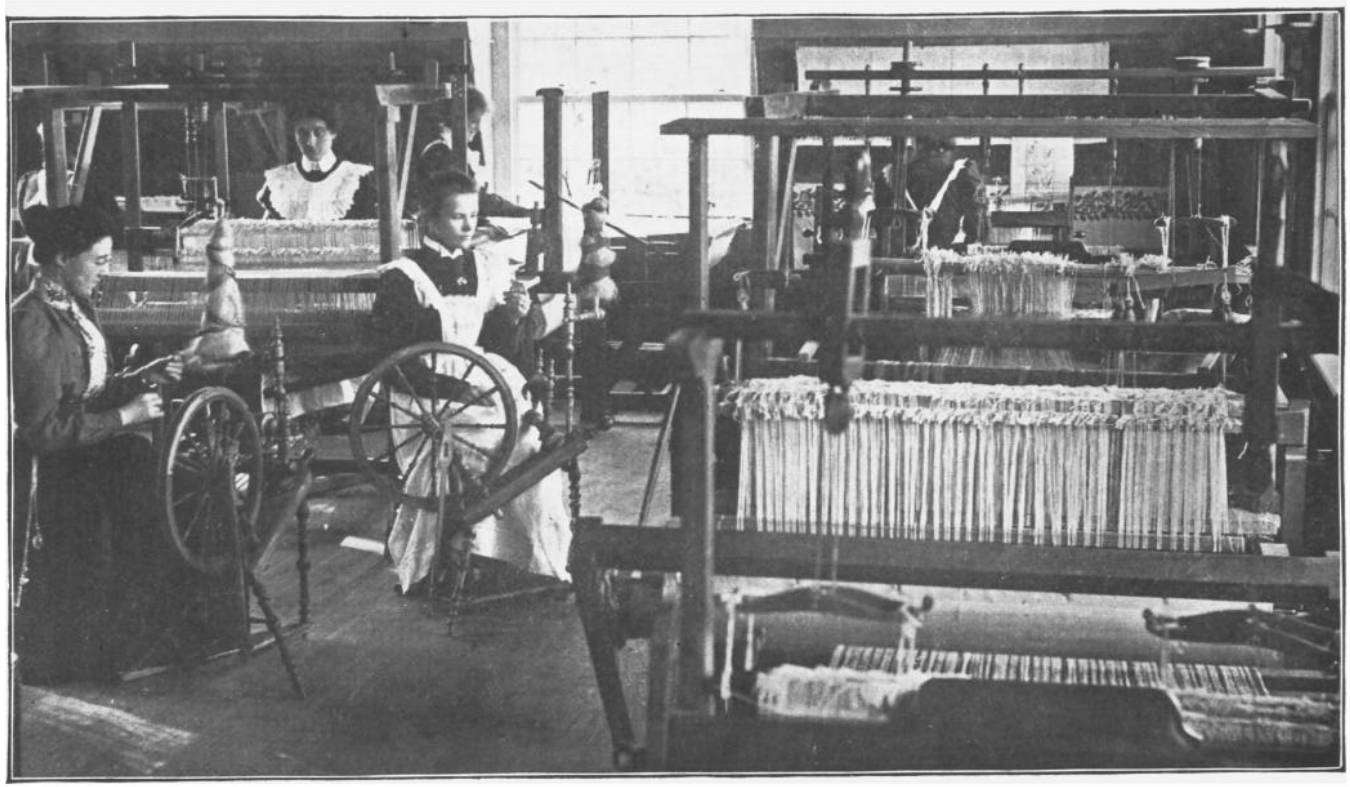
In only one instance does Haslemere leave its quaint, old-time life and become an ugly modern business village. From the railroad station deep

in the valley to the quaint little Weaving House modern factory conditions seem to struggle for a footing. Foundry Road is a paved street with work shops, stores and working men's houses crowding one another together. When the road begins to rise out of the narrow valley, the Weaving House and its close companion, the Tapestry House, stand as if to utter a protest and block the way against the farther march of ugliness. Beyond them the open valley stretches, the wooded hills show winding paths and the birds sing in meadow and copse.

In front of the Industries the road slopes upward, so that the buildings are partly below the level. Bridges swing across from the road to the second stories, and steps lead down to the ground floors of the buildings.

From the open windows of the Weaving House the steady click and thud of the looms and the whirr of the wheels are heard by passers-by. A sign hangs over the gate on the bridge bearing the name: "Haslemere Weaving Industry," and below, a placard bids visitors welcome.

More than eight years ago these industries were started that the village girls might have happy employment and remain in the fresh wholesome village life instead of drifting to London. It was felt by the public spirited founder, Joseph King, whose home was in their midst, that beautiful hand-made materials were needed and would have purchasers if the opportunity were offered. His confidence was justified. From a small beginning the industries are now well housed. Two workshops of two stories each, simple, attractive, adequate to the needs, are filled with happy, appreciative workers. The designer for both houses is Mr. Godfrey Blount, a well known artist. His wife is the inspiring director of the Tapestry House. The Weaving House is also under a capable manager, who goes in and out among her corps of workers, advising, di-



recting, assisting—sometimes at the spinning wheel, again at the loom over some intricate pattern which must be worked in by the hand rather than by the shuttle.

Each day has its visitors who have heard of the rare linen and cotton fabrics, and have often come long distances to see them. At such times the workroom is aglow with color, for out from deep carved chests and from high old presses are taken the woven stuffs, delightful in texture and harmonious in color, and hung up or thrown over tables. The materials are all handwoven and sometimes handspun. They are used for many purposes—hangings, table and sideboard covers, dress goods, etc, A revival of a beautiful old Scandinavian craft is seen in the pattern weaving, and simpler designs are made with treadle weaving. All have a distinct character of design which belongs to the Haslemere Industries.

The village girls can be seen at the looms making like materials. The warm colored walls and sloping ceiling make a constant sunshine within. Soft green window draperies obscure the too brilliant afternoon light which pours through the large windows.

The cheerful, healthful workrooms, the mediaeval furniture of chests, presses, wheels, reels and looms, the bold fine coloring of the stuffs, the white aproned village workers. and the wide stretching meadows and steep hills of fair Surrey, as seen through the windows, are a pleasant picture of labor under ideal conditions.

The first floor of the Weaving House is used principally for the preparation of the warp. Here the village girls are at work at spinning wheels, spooling jacks, warping mill and warping frame.

The Tapestry House beyond has tapestry and rug looms on its first floor. Wool rugs with harmonious designs and colorings are a specialty of

this branch of the industry. Great stores of soft colored vegetable-dyed wools line the shelves on the walls. Welsh and Scotch cottages supply much of this material.

The second floor of the Tapestry House is devoted to "peasant tapestry," a rich linen applique work suitable for wall hangings and ceremonial uses, as well as for enriching materials for home decorstion. This is like its sister, the weaving room, in its coloring. On the upper side walls Mr. Blount has wrought in gesso with his own hands fine characteristic designs. On shelves stand German and English handmade pottery picked up by Mr. Blount in his journeys among peasant home workers. Rugs and applique embroideries, rich with traditional design, hang on the lower walls.

The same workers continue year after year. They have pride in their work and appreciation of it. As yet they do not carry out their own designs, though Mr. Blount would desire this if possible.

The spirit of the workrooms is happy, helpful, natural and industrious. Rush and worry are never present. Haslemere materials are to be found in use in the homes of the workers, showing their love for their handicraft.

The industries are self-supporting, though not yielding heavy revenues. The wages are not large, but, as it costs less to live in Haslemere than in London, the sum received is perhaps of equal value. The sales of material are continuous though not extensive. They have increased in amount in proportion as the English people have grown to appreciate the value of handwoven stuffs. They find their market in Haslemere in the daily visitor, and in London at the Peasant Arts Society, 8 Queen's Road, Bayswater W.; the Gild of Handicraft, 9 Maddox St., Regent; the yearly spring sale and exhibition of the Home Arts and Industries Association, and also, at times, at Liberty's.

From the designer and handworker, Godfrey Blount, Haslemere receives the inspiration which gives these hand industries their unique characteristics. Believing that the redemption of art must come from workers who, with loving touch, decorate useful things—be it only simple articles of every-day use—Mr. Blount himself lends his hand in all parts of the work. He does not expect every village worker to become capable of originating beautiful designs; he feels the creative imagination to be a rare gift. But he does successfully endeavor to cultivate among his band of workers an appreciation and spontaneous imagination which will inspire the hand to express itself in some way. That such work may give opportunity for higher aims, he would have pupils learn to draw and also to design. He would also have them study the traditions of art, not merely to copy the results, but to feel a sympathy with the spirit of art that in their hearts they may realize another's heart back of a design.

His own loving study of the past shows itself in his characteristic use of Coptic motives in the materials and in his book, "Arbor Vitae." He feels that the present revival of handicraft will mean little for art if it be but a philanthropic occupation for idle hours or a means of keeping people from the public houses. It must be the dawn of nobler conceptions of the charm of labor and of the unity of life. Workers everywhere must feel the happiness of impressing their own highest feeling on the objects they are making.

The success of the Haslemere Weaving and Tapestry Houses is drawing other handworkers to Haslemere. On the hills far back in the copse a wheel, warping frame and loom are at work in the hands of an artistic charming woman. Cheerily she makes soft, clinging cotton and linen materials in pure white or with the delicate coloring of pale sunset skies, such fabrics as the Greek matron would have delighted to

use for *chiton* or *peplos,* or with which the Church could deck its altars.

On a high terrace looking down on Haslemere a small kiln has been built. Another worker, long connected with one of the noted potteries in Southern England, is now working out his own designs on hand-made tiles.

Across the narrow valley, an artist and designer of long experience has secured a simple little building. During the summer Mr. Hooper was busily at work putting hand looms in place and setting up the mysterious cobwebs of the Jacquard harness. By this time exquisite brocades with wonderful designs carried out in pure silk and threads of precious metals are coming from the little shop.

These hand industries of Haslemere seem to prophesy a new birth of art. Throughout Great Britain hundreds of villages are quietly working at like crafts. Cottages once poor and dismal are becoming prosperous and happy.

In America, too, we have a few such garden spots where the hand is employed in noble work. Deerfield and other places are raising in us the appreciation of true workmanship, for, in the words of the Duchess of Sutherland, who has worked successfully in the far Northern Highlands and Islands of Scotland for the return of the old handicrafts,

> "Men's eyes see again,
> Men's minds live again,
> Men's hands fashion again."

THE LIFE HISTORY OF A DESIGN

IT is most usual to consider decorative art from the aesthetic point of view; but it may, with profit, be treated by the biologist; for all delineations used as ornament have an individuality and life-history which are interesting and valuable, independently from their artistic merit. The lotus-border, the Greek egg and dart moulding, the alligator derivatives of Oriental textiles may be studied as so many specimens in natural history. And rightly to understand and classify them they must be approached with scientific methods. In biology, it is recognized that in order to seize and to understand the phenomena of life, the student must form a series: comparing the complex and highly developed animal with a lower form, and this latter in turn with a still simpler and less specialized organism. The same means must be employed in the study of the arts of design, whenever their history and evolution become things of moment. A complex delineation adroitly conceals its source and origin, to determine which the investigator must follow its less and less specialized forms backward into barbaric art, and thence into savage ornament, which is the analogue of the lowest forms of organic life.

It is now recognized that biologists, ethnologists and art-critics may work side by side and with reciprocal profit; that science has broken or made thin the walls separating the various divisions of intellectual activity. Therefore, the term "life-history," as applied to a given example of ornament, will be accepted without question. The life of a design, like that of an animal or a plant, consists of three stages, or periods: infancy, maturity and old age, or, more simply, birth, growth and decay. It is never stationary; but, like living things, undergoes a slow and constant change.

It is true that the greater part of artistic expression owes its origin to realism: the delinea-

tor yielding to that desire to imitate which is among the strongest impulses of human nature. The first representation of an object, employed as ornament, is intended to be true and suggestive; but especially among barbarous people, the delineation fails, because of lack of skill in the artist, or the unsuitability of the materials employed. This first representation corresponds to the birth of a new organism into the world of living things. As the animal or plant, immediately on birth, becomes subject to influences which determine to a degree the course of its life; so the design, which, although it can not lose the impress of the race and civilization which produced it, is yet acted upon by forces which give it individuality, and provide for, or arrest its development. Among these external influences may be mentioned the following:

Degeneration of the design through incompetent copying.

Conventional treatment for decorative purposes.

Simplification through repeated copying.

Debasement resulting from an imperfect or perverted artistic instinct.

For purposes of illustration, the lotus-design offers a most inviting study. First of all, a word must be said regarding the division of ornament to which it belongs. According to the terminology adopted by an eminent scholar, whose theories form the basis of the present article, it is a phyllomorph (plant-form), and, as such, belongs to a small class; inasmuch as plant-life is passive and does not force itself so aggressively upon the attention as do the forms of animals (zoomorphs). This explanation would account for the nature of objects imitated by savages in their ornament, which consists largely of animal forms easily traceable to their source, if the conventions used by the designer be once apprehended. According to the same authority, plant-forms in ornament are never adopted by those incapable of high civilization, and they are generally the sign of peoples already well

advanced; since to the inhabitants of cities, they are reminiscent, representing something lost and regretted: a cherished part of the free life of nature. Finally, those plants into which a spiritual meaning can be read are best able to establish themselves in decorative art. The lotus was introduced by religion, established by symbolism and propagated by the habit and frequency of sight. In ancient Egypt, this flower was a sun-symbol and was associated with the eagle and the hawk, which, among zoomorphs (animal forms), typified the same natural force. This first relationship gradually led to others in which the primitive symbol was absorbed and lost. So that the lotus became a well recognized emblem of life, resurrection, reproductive force and immortality. It was painted and carved for several thousand years in Egypt alone, and appeared as a decorative theme composed of isolated flowers, rising straight and high upon their stems, as if these latter were issuing from their native element: the slimy ooze of the bed of the Nile. This separation of the component elements of the design was a decorative fault, as a marked lack of unity resulted therefrom, marring the otherwise beautiful and graceful pattern. It remained for another people, skilled in the making of textiles, to remedy the defect by joining the stems of the flowers; so giving to the design suggestions of a fringe. In connection with the lotus derivative, the Assyrians used another floral pattern, also borrowed from the Egyptians. This was the rosette so frequently employed even to-day in ceiling decorations in stucco. It was originally drawn from the cross-section of the seed vessels of the lotus, and its union with the first design was a natural and happy one. There are indeed authorities—among whom Layard, the archaeologist and excavator—who claim originality for the Assyrian flower pattern; asserting it to have been conventionalized from the scarlet tulip which, at the beginning of spring, blooms luxuriantly over the plains of Mesopotamia. But even allowing the truth of

this statement, it remains that the lotus motive overran Assyrian art; whether it was accepted from the Nile country, or whether it found a pre-existing design upon which it could be engrafted. In comparing the flower design as employed by the two peoples, a critic has thus expressed himself:

"The Assyrians borrowed their motive from Egypt, but they gave it more than Egyptian perfection. They gave it the definite shapes that even Greece did not disdain to copy. In the Egyptian frieze the cones (buds) and flowers are disjointed; their isolation is unsatisfactory both to the eye and the reason. In the Assyrian pattern, they are attached to a continuous undulating stem, whose sinuous lines add greatly to the elegance of the composition."

The textile skill of the Assyrians already mentioned as a cause of their success in the flower motive, is plainly reflected in the examples discovered by Sir Henry Layard in the Ninevite palaces. In one of these there is a repeated and pendant disc or sphere, as a variation from the flower; all the pendants being connected by a single cord, which appears as if it were drawn into loops by their weight. The flower-motive thus, among the two earliest artistic peoples, took, with each, a distinct form resulting from natural causes. In the Egyptian temple—which represented the world—the lower portions of the walls were adorned with long stems of lotus, or papyrus—bouquets of water-plants emerging from the great river. The Assyrian design, on the contrary, influenced by the textile idea, and suggesting a tasseled fringe, is never without a looped base line and is pendant rather than upright. It no longer recalls the river country with its water-plants, but rather the wide plains of the Orient, against whose fierce heat the tent, canopy and curtain offered a grateful protection. To illustrate the rich, decorative effect of these early systems of ornament, no better example can be found than the picture of Sir

Edward Poynter, representing "The Queen of Sheba at the court of King Solomon," in which the lotus derivative and the rosette cover wall and ceiling and balustrade to form a bewildering maze of graceful form and brilliant color.

From Assyrian ornament, the flower-pattern passed into Greece through the medium of the islands of the Archipelago, especially Cyprus, whose people were both artistic and commercial. The Greek decorators appropriated the design, as modified in Middle Asia; that is, with the flowers represented as partly faded and with curling sepals. Architects, painters and potters were content to reproduce this one design for many centuries, with but slight variations; thus showing, as a critic has remarked, a decorative conservatism in marked contrast to the mental unrest of the Greeks, which was always seeking new things. Under the false name of the honeysuckle pattern, the Greek form is familiar to every grammar-school pupil; and no eye, however artistically untrained, can fail to recognize the parent of the acroteria (roof-ornaments) of the Parthenon in the lotus pattern as treated under the Theban kings. No less than the "Greek honeysuckle," is the French *fleur de lis* a descendant of the lotus-pattern, although it was complicated through Assyrian influence, with the date-tree head supported and flanked by horns—a familiar sight in Eastern countries, where this combination was used to avert the power of demons and of the Evil Eye. The decorative quality of these objects was observed by the Crusaders, who possibly, also, came to believe in their magic influence, and the *fleur de lis* was adopted into French heraldry by King Louis VII. on his return from the Holy Land, midway in the twelfth century. A lotus original has been acknowledged for the Ionic capital, whose volutes, if studied in the earliest and through the transitional examples, are plainly seen to be the withering sepals of the sacred water-plant. Finally, the "egg and dart"

moulding, which passed from the Greek into the Renascence ornament, is probably a lotus derivative, as many of the first critics would have us to believe. Owen Jones and de Vesley, among the foreign archaeologists, and Professor Goodyear, the American, independently arrived at the conclusion that the moulding in question is nothing beside a "simplified" lotus design; that is, a form in which one member is developed and accentuated to the partial obliteration of the remaining elements. So considered, the egg and dart pattern becomes simply a semi-oval left between two lotus trefoils, the dart being the central sepal. The design first used upon flat surfaces, was further slightly modified, when the flat oval areas were carved as rounded projections.

It would therefore appear that the plant-forms used still to-day in the decoration which meets our glance from wall and rugs and hangings may largely be traced to a common parent: the lotus. And however ill-founded and fantastic this statement may at first seem, it has been deduced from patient investigations, like those pursued by Darwin in his work upon the "Origin of Species," which revolutionized the world of science.

The study of design pursued by the biological method, even gains in interest when it is applied to animal forms. The tapestries, rugs and pottery which compose so large a part of our material environment teem with these concealed zoomorphs. A wavy line, a scroll, a geometric pattern, which apparently has no relationship with any created thing, is most often the long-developed, "simplified" form of some bird, beast, or fish which, ages ago, seized the ready imagination of a semi-barbarous designer. To illustrate this point, we have but to avail ourselves of a series of drawings which are found in Holmes' "Ancient Art of the Province of Chiriqui, Colombia:" an admirable study contained in the sixth annual report of the Bureau of Ethnology, published at Washington, in 1888.

The series, copied from Mr. Holmes' study, and printed at the end of the present article, begins with a highly conventionalized representation of an alligator, which animal, it may be said in passing, invariably finds its way into the decorative art of its native districts. In the illustration, the salient features of the animal alone receive attention: the serpentine line of the back; the scales, here indicated by spotted triangles; the gaping mouth, with a row of dashes for the teeth; altogether, a strong suggestion of the feelings which the alligator is capable of exciting in the semi-barbarous mind.

These suggestive decorations having been scattered among the people, produce a new class of works, whose ruling feature is "simplification:" that is, types in which the leading features are retained, while the minor characteristics are always obscured, and, in some cases, almost wholly obliterated. So, in the second drawing of the series, the body of the alligator is without scales, the head devoid of eyes, the mouth barren of teeth, and the upward curve of the tip of the upper jaw greatly exaggerated—which last peculiarity would correspond in biology to a highly specialized organ.

Following the designers who "simplify," come others in whose hands the types become degenerate. In the third term of our series, we find the alligator reduced to a curved line and a spot; to a curved line without spots; or to a continuous chevron, with spots filling the triangles made by the indented line. A mere suggestion is all that remains of the conventionalized alligator of the first term of the series; the strength of the simplified form is a thing of the past; decay has invaded the design, and its indentity can not be determined save by the touchstone of science.

These illustrations might be prolonged indefinitely to show the curious mingling of animal with vegetable, or of animal with textile forms. But it is hoped that enough has been said to suggest

agreeable and useful employment for an idle hour, through the study of any given design which shall meet the eye in tapestries, floor-coverings, wall-hangings or cabinet work. Evolution is the pass-word of the hour, and studies in origin, development and degeneration, in whatever department found, are in chord with the spirit of the age.

BRAIN AND HAND

"THROUGH the eye and brain to the hand" is the germ sentence of a recent inspiring study by Prince Kropotkin, an economist who has taken a foremost place among writers upon the labor problem. In this study, the author discusses a question which may be entitled: "the economy of energy required for the satisfaction of human needs." He makes a strong, convincing plea for the union in one person of the scientist and craftsman; citing as examples of such union: Galileo and Newton, who made their telescopes with their own hands; Liebnitz, whose mind was pre-occupied with windmills and horseless carriages, as deeply as with philosophical speculations; and Linnaeus, who became a botanist while aiding a practical gardener—his father—in the minutiae of daily labor.

Prince Kropotkin continues that the learned men of to-day have raised the contempt of manual labor to the height of a theory. He represents them as saying:

"The man of science must discover the laws of nature, the civil engineer must apply them, and the worker must execute in steel or wood, in iron or stone, the patterns devised by the engineer. He must work with machines invented for him, not by him. No matter if he does not understand them and can not improve them: the scientific man and the scientific engineer will take care of the progress of science and industry."

That such is indeed the attitude of the educated class toward the workman, in America as well as in Europe, no one can deny. But yet it is a statement which must be made calmly and in no spirit of resentment toward those favored by birth and position. The existing situation has grown out of the division of labor, which has specialized the task of the workman to

such a degree that he has lost all mental pleasure in his work. This result was inevitable, but it must be regarded as a definite stage in the evolution of industry, and, as a stage, necessarily temporary. For even now, a reaction is upon us, and there is a revival of the mediaeval handicrafts which can not but result in a renewed sense of the dignity of the craftsman.

In relation to the minute subdivision of labor now in force throughout the industrial world, Prince Kropotkin asks the question:

"What can a weaver invent who merely supervises four looms without knowing anything either about their complicated movements or how the machines grew to be what they are?"

Further accentuating the same idea, he relates with pictorial power a scene witnessed by him in a lace-factory in Nottingham, where "full grown men with shivering hands and heads feverishly bind together the ends of two threads from the remnants of cotton yarn in the bobbins. Their celerity is so great that one hardly can follow their movements. But the very fact of requiring such kind of rapid work is the condemnation of the factory system. What has remained of the human being in those shivering bodies?"

Through these impassioned words it is plain to perceive the Russian thinker who more deeply and practically than a man of other nationtionality, knows the meaning of injustice, oppression and despotism, and whose heart throbs with what the Germans call the "world-pain." Yet, once again, toleration is here necessary. As Mr. Carroll Wright, the American economist, has logically shown, the factory system has been productive of certain good results, chief among which is the extensive employment of the unskilled and the ignorant, who otherwise would go to swell the dangerous classes. And this is especially true in the industrial centres of England, notably in Manchester, where the so-

called "cellarage population" disappeared as a consequence of the establishment of the great industries.

Passion and sentiment do not aid the understanding of economics, and it is well to remember that "the mills of God grind slowly." The English cottage industries of the early eighteenth century, as described by Mr. Wright, were pursued in huts rather than dwellings, in a germ-laden atmosphere, and amid conditions of low morality. When the system declined, owing to its failure to meet the demands of the age, the factory was censured for inherited evils. Certain of these hostile to health, morals and the personal liberty of the workmen were abolished by a series of legislative acts begun in the first years of the nineteenth century, and ending in its last quarter. The greatest remaining evil—the subdivision of labor—now prevailing universally, is revealing its unhappiest results, and will, as all other imperfect systems before it, fall through its own weakness.

The remedy suggested by Prince Kropotkin is what has been named in France: *l'education integrale,* in other words, a knowledge of scientific principles joined to a practical use of a handicraft: this training to be given by the State. The value of the workshop, as a school, is illustrated by the clever writer in an allusion to the steam engine, which he says can not be known in drawings and models only, but must be studied in its breathings and throbbings, as he alone can do who daily stands by it. And as is usual, the statement is fortified by the anecdote: this time concerning the early theoretical mechanics, in whose engines a boy had to open the steam valve at each stroke of the piston. The device necessary for the automatic opening of the valve failing to occur to the men of science, was at length found by one of the boy tenders, who contrived to connect the valve with the remainder of the machine, in order that he might run away to play with other children.

The student, continues Prince

Kropotkin, must not be sent to a workshop to learn some special handicraft, that he may earn his existence as soon as possible; but science must be taught hand in hand with its application. Drawing the writer recommends as the first step in technical education, and following this, carpentry, the making of patterns in wood, practice in casting, and finally work in the smith's and the engineering workshops: a system first attempted in Moscow, and afterward, in part applied in the Boston School of Technology and the Chicago Manual Training School.

Specialization, even in manual training, Prince Kropotkin would have avoided; since in his opinion, no one can be a good manual worker, without having been accustomed to good methods of handicraft in the broadest sense. He indicates that each machine, however complicated, can be reduced to a few elements, and decomposed into a few modifications of motion. Consequently, each handicraft is capable of a similar reduction, and the student who has learned to handle the type-tools which number less than twelve, and to transform one kind of motion into another, has already acquired the half of all possible trades.

The plea of Prince Kropotkin for reform in public education can therefore be briefly summed up as a demand that science shall not be separated from handicraft; that general knowledge shall precede special acquirements; and that all members of society shall produce as well as consume.

THE FIRESIDE INDUSTRIES OF KENTUCKY

IN the December number of "The Craftsman," under the title: "A New Irish Industry," an account was given of the successful establishment of an interesting textile handicraft among the peasants of the West Highlands, or Donegal district of Ireland. In the current issue, it is possible to offer a few words regarding a no less worthy enterprise, which is already yielding fine artistic and economic results in the Appalachian region of our own Southern States.

To visit this region is to lose a century of the inventions which are regarded as the necessities of life in the larger American cities and towns. Ships, steam-engines and even row-boats are there unknown, and the only means of travel is upon horse-back. Civilization has left these poor mountaineers far behind in all that makes for outward refinement and knowledge of the world. But they have, in their isolation, retained enviable qualities, both physical and mental. They are strong and lithe in body. They are generous and hospitable, without expectation of reward. Their household goods and their clothing are in striking contrast with the belongings which commercialism and the love of display have thrust upon the open market.

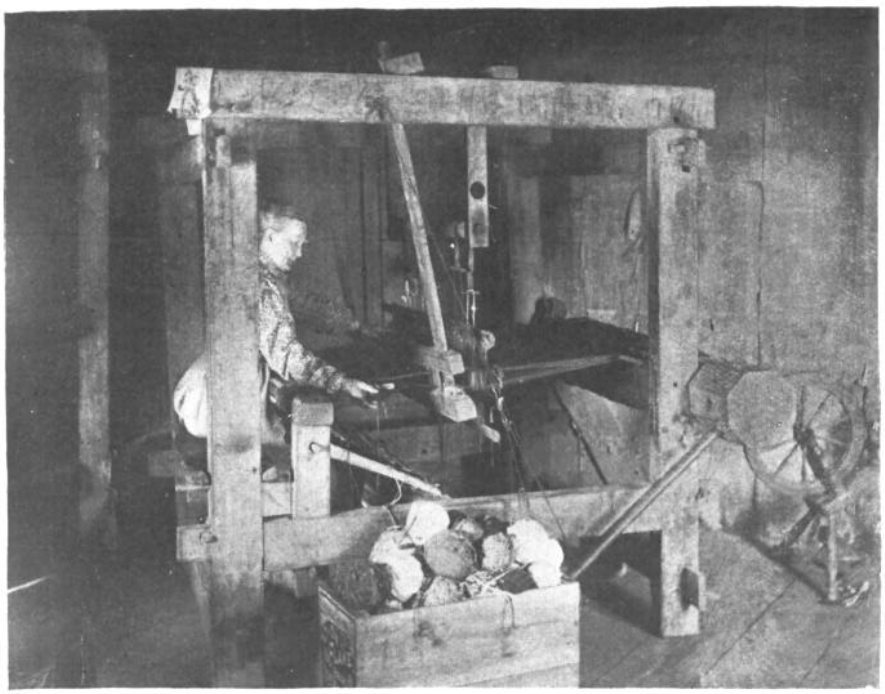
But these mountain folk are, at last, threatened with change. Already, saw-mills are supplying boards for frame school-buildings and dwellings, with which to replace the old log-houses; agents of sewing-machines are finding their way to the most obscure hamlets; and new conditions and customs are about to be established among them. It becomes a question whether the baser elements of modern life shall be passed on to them without protest, and whether honest handicrafts shall be allowed to decline and disappear among them, as they have everywhere failed, when brought

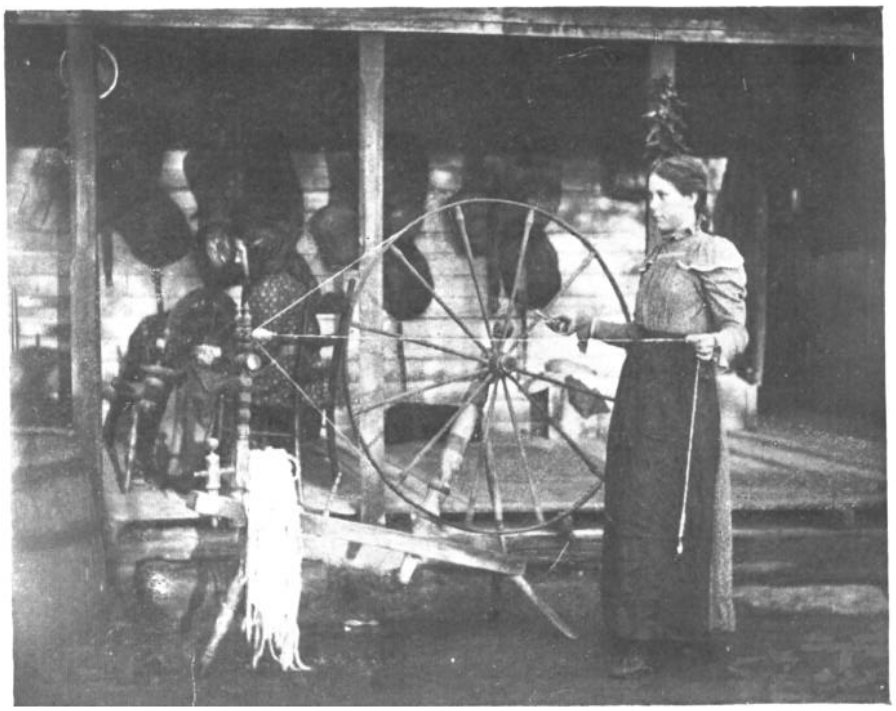
into competition with the factory-system of production.

To preserve these homely arts little effort is needed. Difficulties do not exist such as offered themselves to Morris and Ruskin, when they sought to establish home industries in the Lake district of England. In their case, it was necessary to obtain from Sweden looms, as well as weavers, to teach the native women the practice of the craft. But in our Southern States, there are hundreds of spinners and weavers who are skilled in producing the most intricate patterns. Indeed, the industry is so widespread and so important, as a means of livelihood, that young mountaineers seeking entrance to Berea College, have brought with them from their hamlets hand spun-and-woven coverlets and stuffs, in cotton, linen and woolen, asking the College to accept these in payment for their tuition. The institution recognizing from this fact, the importance of stimulating these fireside industries and of finding a market for their products, is now seeking the best means of accomplishing the desired results.

The stuffs are sold at low prices, but nothing has been cheapened in the making. They are the product of hard, honest toil. To make them is a long process demanding constant watchfulness and unremitting labor. First, flocks of black sheep must be raised. Then, the wool must be spun on large wheels for the weaving of blankets, butternut jeans for men's clothing, and linsey-woolsey for women's dresses.

The raw material of the linen fabrics grows in the hollow lands, in waving masses of plants, which must be cut before the bloom of the delicate blue flower. The flax is then allowed to rot, through the action of wind and rain, until the fibre is loosened from the outer husk; care being taken to seize the precise moment for this process, since, if rotted too long, the fibre is so weakened that much substance is lost in the preparation for spinning.





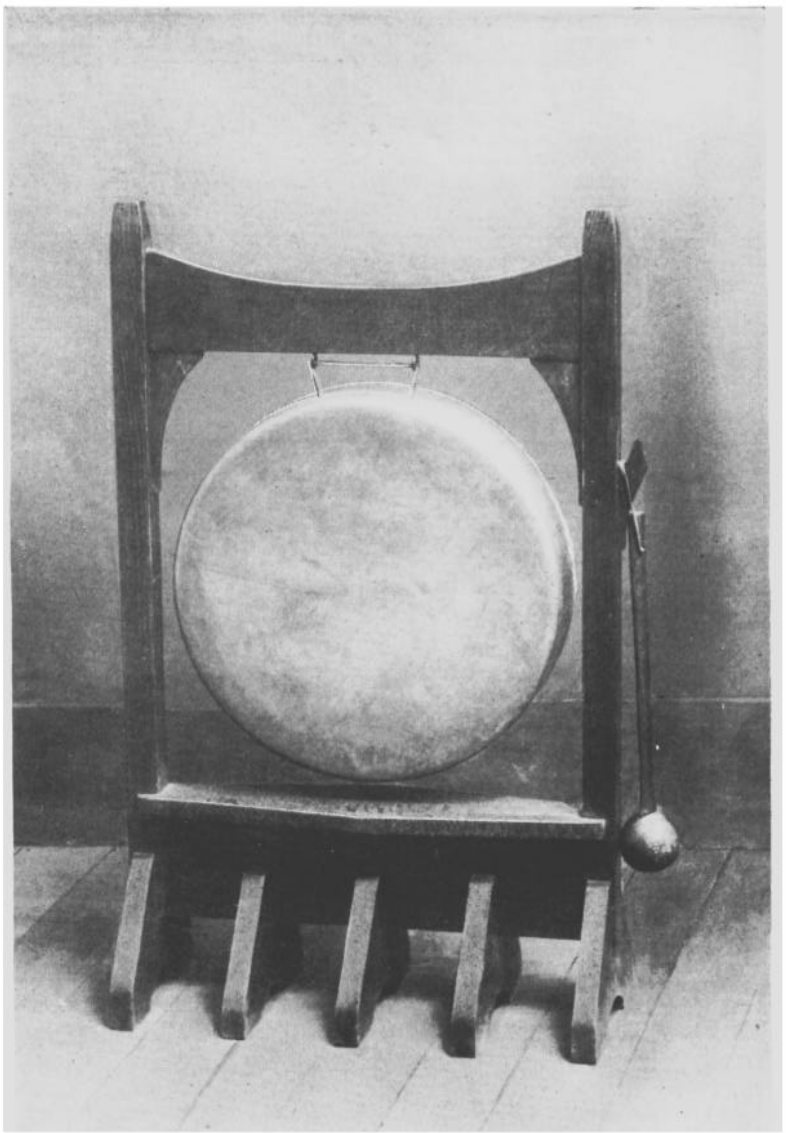
One of our illustrations shows the hard labor necessary to free the fibre of the flax from the chaff. The man stands at the break made of heavy oaken rails, between which he crushes the ties of flax; passing them afterward to the women who, laying the substance across boards driven into the ground, strike it with heavy, broad knives of oak; thus removing the bark which the break has crushed. In the foreground stands an oaken bench set with long iron spikes, or teeth, across which the flax is drawn. By this process the tow is removed, and the flax is left in long, soft and glossy threads which lie in twists and are now ready for the wheel.

Like the wool and the flax, the raw cotton is subjected to various hand processes, which are aided by the most primitive tools of home construction.

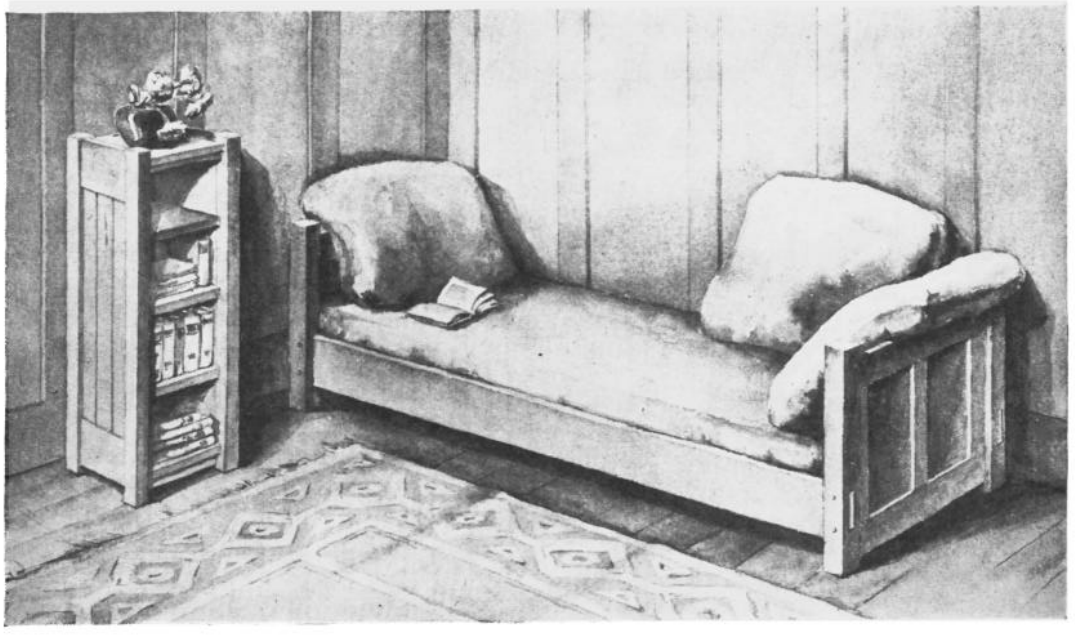
Interesting and simple equally with the manufacture of the fabrics, are the means by which they are dyed. These mountain craftsmen are, perhaps, the only dyers remaining in our country who use the vegetable indigo and madder, and, in this use, they would be highly approved by William Morris, whose influence was directed against the employment of the aniline colors. Beside indigo and madder, the bark of the nut trees and the flowers growing on the mountain sides are utilized in the stains, with excellent results in both color and permanence. In the cabins of this industrial people, the dye-pot is found by the fireside, and the process of dyeing goes on with slow, painful effort.

The finished fabrics are interesting not merely as examples of primitive industries conducted for the purpose of supplying the real needs of a neighborhood, or section, and consequently devoid of that unmistakable commercial quality found in all manufactures created for an indefinite "market;" but they are artistically good as textures and as designs; some of them indeed being quite worthy to enter into manuals and textbooks of the arts of spinning and weaving.

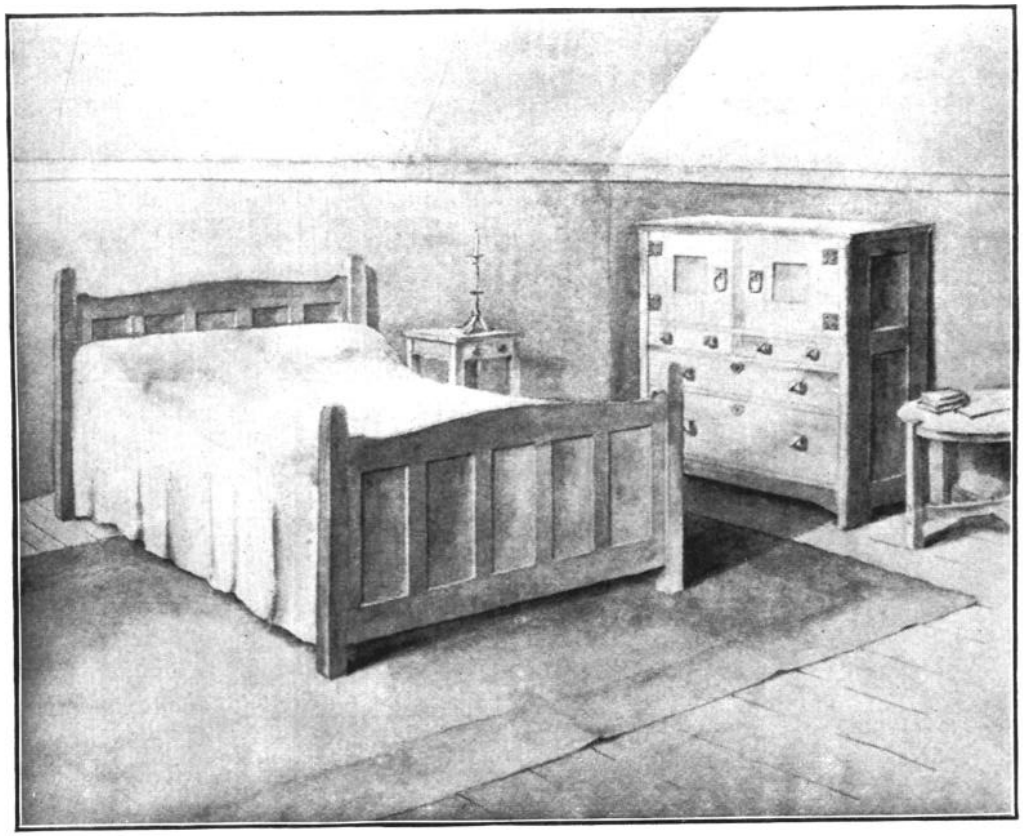
Altogether these fireside industries should be fostered and developed, by reason of their three-fold good influence—economic, social and artistic—upon the mountain population of Kentucky, too well known as smugglers, brigands and maintainers of the "vendetta." It is earnestly to be hoped that the followers of Morris and Ruskin will sustain these industries and bring education to those who so earnestly desire it.



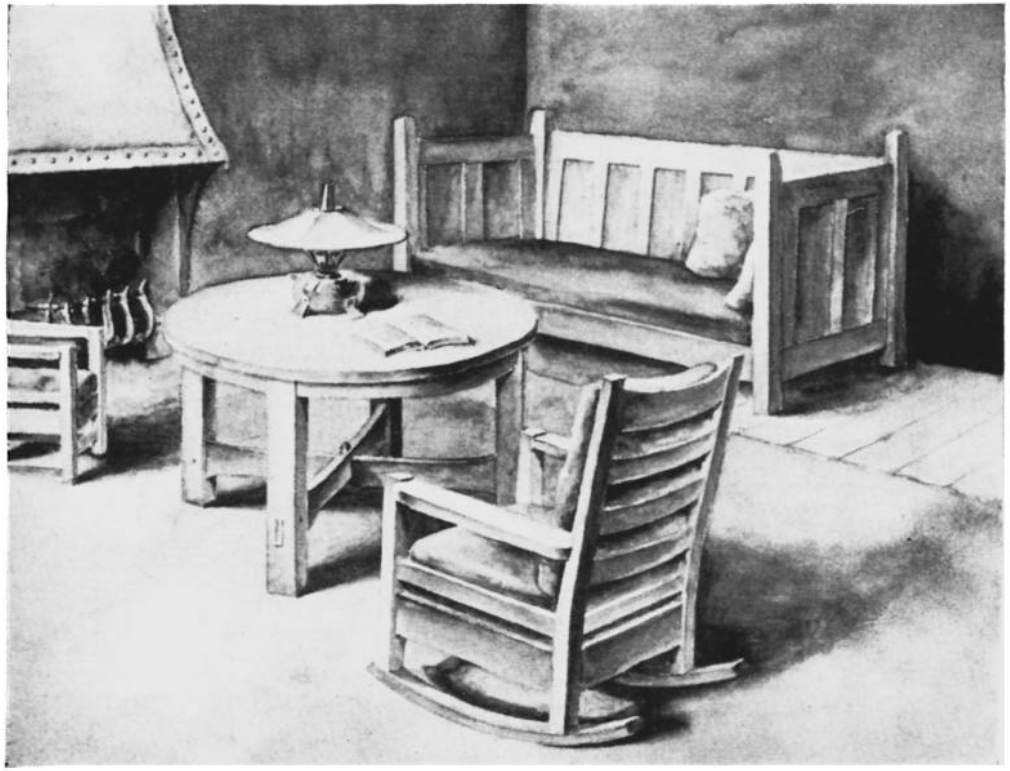
Dinner gong from the workshops of the United Crafts



Couch and magazine cabinet in green oak, with roan-skin seat cushion and pillows



Bed and chest of drawers in green ash



Suggestions for a living room

THE INFLUENCE of MATERIAL THINGS

IN choosing things which we are to have constantly about us, we should subject them to as rigorous an examination as we do those persons whom it is our purpose to make our friends. In both cases, certain moral and agreeable qualities should be requisites for admission to our heart and home. For material and inanimate objects have their honesty, their inherent joyousness and good-humor equally with beings who are endowed with powers of motion, thought, and speech. If these objects frankly and directly reveal their purpose; if they are found capable of meeting every-day requirements—which from their sameness and constancy are necessarily trying; if they have, withal, an attractive personality, they should be accepted and welcomed. We all have known those pleasant surprises which come upon us as we penetrate deeper and deeper into the character of a friend who "wears well." A feeling lower indeed in degree, but not in kind, possesses us whenever some one of our belongings affords us a moment of comfort or of aesthetic pleasure which we have neither demanded nor expected.

For the existence or the absence of such qualities and capabilities in material things the intention of their maker is responsible. If he has produced under the lash of commercialism and competition: if he has sought to be original, that he might allure or startle, without wishing to serve fitness or beauty, then he has falsified himself and ruined his creation. But if he has wrought with every faculty alert, and with absorbing pleasure in his work, then the thing created will reflect to the latest day of its existence that same spirit of truth and love.

The sooner that we appreciate the inevitable, strong, subtle influences which pass from the eye to the brain, the sooner shall we give to ourselves (and with greater profit to our children than to ourselves) surroundings conducive to plain living and high thinking: rooms in which each object shall have some vital reason for its existence, place and function, and which can form an unobtrusive background for the drama of life.

* *

One who has deeply studied the art of building and adorning a home, has expressed himself to the effect that origin-

ality has no value other than a purely commercial one, unless the original thing has advantages over the commonplace. This is a statement which grows in strength as it is thought upon. For if we glance about us, we shall find that the greater number of the architects, designers and craftsmen who supply our needs of shelter and comfort, seek to originate simply for the sake of novelty; to modify, not in order to produce something better, but merely something unfamiliar; occasionally even to foster in the public degenerate ideas of household and decorative art, impressionistic to the last degree, and comparable with the vaudeville, that enemy of the true and elevating theatre.

The artistic is not the eccentric, or the unusual, but rather the thing which frankly and perfectly meets the requirements and respects the limits of its use and office.

❧ ❧

Human speech has ceased to be regarded as the most perfect existing medium for the conveyance of thought. The arts stand above it. Not because they have within themselves no sharply marked divisions like the languages; but because they are capable of finer, more variable shades of meaning than can be expressed by firmly fixed conventional words. Sound, form and color appeal to the senses with imperious force, which is the more tyrannous because of its silence. Words are forgotten in their rapid succession. They are little and light when compared with the all-embracing atmosphere-like quality of the means of thought-transmission which can be established by the arts.

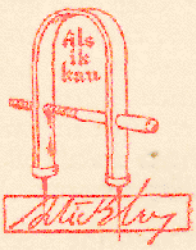
It is imperative that we surround ourselves with honest, uplifting, simple and beautiful expressions of ideas to be conveyed to the brain through the eye by means of form and color.

INERMIS

Musing, I sat within the House of Life,
Intent to watch the soft sleep of a child;
Saffron and rose his bed; radiant and mild
His countenance; tranquil his form, though rife
With strength that seemed to court and long for strife.
But while he slept, there came in garb defiled,
Sinister, scarred, bearing a distaff piled
And plumed with nodding flax, an old witch-wife.

She plied her art, and round the sleeper span
A knotted web which bound him limb and thew;
Startled he writhed and wrestled, but too late:
Strength wrought in vain against the cunning plan;
The woven bonds held fast. And then I knew
The child was Hope. The ancient crone was Fate.

I. S.



THE accompanying device, with the legend Als Ik Kan and the proper date, is found upon every article made by the Gild of the United Crafts. The idea of so distinguishing the work produced arose from the desire to serve both the user and the maker. In case either of accident, or of a concealed defect in material, which could not be known to the craftsman, the article so marked may be returned to the workshops, and, at the same time, the Gild will be aided in its efforts to produce only such objects as shall be free from flaw in construction, process and substance.