

classical period; yet in how different a spirit from the old classicists of America who lived in Rome! The fashion of the day compels him to drape his portrait statues in modern clothes, but this is of small importance. Only superficial classicists are they who depend on togas and nudeness to show their classicism; failure to be classical is shown by much deeper

traits. And in Warner the instinct to pass by the French pseudo-classicism and the Italian Renaissance and to strike for the highest bloom of Greek statuary shows itself quite as much in the Buckingham as in the "Diana Aroused," in the "May" as in the bas-relief of "Venus consoling Cupid."

Henry Eckford.

AN AMERICAN APPRENTICE SYSTEM.



EACH year in the United States nearly six hundred thousand young men reach the age which separates the minor from the man. In this great host the idlers are few: the census states that the number of those who do not follow some "gainful calling" is too small to enumerate. A great difference exists in the way these young men are trained for the work they are to do. Health, strength, education, and the ability to do some one thing well is the outfit all require. For a small minority great efforts to secure this result have been made. To prepare them for their work scientific schools, schools of law, medicine, theology, and art, normal schools, and business colleges have been established. To give them a liberal education the land is dotted all over with colleges, while others are being founded in such numbers that their utility is questioned. To establish these schools and colleges, or to render them efficient, wealth has been bestowed with a lavish hand. The General Government, the State governments, and private liberality have provided funds of vast amount. In the year ending June, 1887, the gifts from private individuals for purposes of higher education amounted to the sum of \$12,507,000, and during the two preceding years to \$15,290,000. Unparalleled in history as these gifts for educational purposes are, they do not include the expenditures on the Stanford University in California, the amount of which has not been made public. Owing to their endowments, colleges and preparatory schools offer instruction at less than its cost. No less care is bestowed on physical development. Splendidly equipped gymnasiums are provided, where each student is given a carefully considered course of training. The young athlete, as well as the scholar, wins fame and brings credit to his alma mater.

For the many—for upward of eighty per cent. of these six hundred thousand young men—but little has been done. Hardly an endowment exists for their benefit. This lack of

care is owing not to indifference to their wants, but to the fact that until recently all that a young man starting in life required was a good education, which the public schools afforded; then with pluck, and belief in Horace Greeley's favorite advice, the West would provide for him. The West has still its openings, and there is also a new South, but in no part of this country are young men wanted unless they have a knowledge of some useful calling.

The demand for education to fit young men for their work has been gradually widening. Confined at first to a few professions, it is now deemed necessary in all. Business colleges were a novelty a short time ago; now they are attended each year by over forty thousand young men. Instruction in agriculture and the mechanic arts suited to foremen and superintendents was next begun at the land-grant colleges, in conformity with the act of Congress under which they received their endowments. Preparatory education thus far had been confined to those who might be termed the brain workers; it was now wanted by a larger class—by the handicraftsmen. To state how this want is being supplied, and the difficulties to be encountered in this extension of special instruction, these few pages are written.

The first effort that was made was in the direction of manual instruction. Hand and eye were to be developed as well as the mind. Manual instruction, which was almost unheard of in the United States until the exhibit of the Moscow Technical School at the Centennial Exhibition attracted public attention to its capabilities, is now engrafted on the public-school system of New York, Boston, and Philadelphia. In nearly all the other large cities private liberality, by supporting manual training schools for a few, is showing what should be done for all. Manual training, however, is but the beginning. It makes a lad handy and observant; after that has been accomplished he needs to be prepared for some work by which he can earn a living. If he intends to be a mechanic, he must learn a trade.

From a remote period the master workman has been looked upon as the proper person to instruct the young in the mysteries of his trade. On him devolved the duty of transmitting all he knew to the next generation. There were until modern times no schools where the mechanic arts were taught and where a knowledge of them could be treasured up. The monasteries, which preserved letters and the fine arts through the dark ages, did little for the mechanic arts. Trade secrets were forgotten. During the middle ages the apprentice system was introduced. The apprentice of those days was a member of his master's family and worked under his supervision. In modern life and in modern industry this relation between the master workman and his apprentice has become impossible. The master mechanic seldom takes the tools in his own hands nor remains long enough in his workshop to teach his apprentice; neither does he want the lad in his family. In Germany and in France apprentice schools were established to supply the training the master mechanics could no longer give, where lads employed in the trades go in the evening or on certain days in the week. In this country no such precaution was taken. A lad simply got employment in a workshop for as long a time as his services were needed or he might deem it advisable to remain. He picked up his trade by observation and by such advice as might be bestowed upon him. He might acquire wrong instead of right methods, for there was no system, and his training was a matter of chance. Still, with American adaptability, it was possible even under such unfavorable conditions to become a good mechanic, and more of the high wages paid to skilled workmen would have gone to Americans had not the trades-unions interfered with the lads. In every large city, or wherever there were a sufficient number of workmen to form an association, the unions demanded that the number of lads should be so limited as practically to exclude them from the trades. Then the demand was made that the few who were allowed to learn how to work should serve a four or five years' apprenticeship, which still further reduced the number of mechanics an employer could graduate. To both of these demands the master mechanics agreed. As regards the first, they had no option; the second demand, compelling a lad to serve for a long term of years, was not distasteful to them.

To so great an extent has the exclusion of

lads from city workshops been carried, that had it not been for the country master mechanics, who, having no trades-unions to contend with, were free to employ boys, American workmen would have disappeared from some of the trades. The report for 1886 of the New York Bureau of Statistics of Labor states that there are large industrial establishments where there is not a single American at work.¹ Now a new power has arisen, and this claim of the trades-unions to fix the number of apprentices is disputed. The desire to regulate and meddle, which has been imported here, caused the union leaders to interfere with the business of the employers, until the latter were forced to forget their rivalries and form associations for mutual protection. These associations are stronger than the unions, and it is to their credit that as soon as they were formed the apprentice question became a prominent one. Young men were eagerly asking for work which the master mechanics were anxious to give them; but before incurring the hostility of the trades-unions, it seemed important to determine how the lads were to be trained and on what terms they were to be employed.

At first there was a very general desire to reestablish the apprentice system of the middle ages. The traditions of the past were still strong. The lad must "serve his time"; that is, be legally bound to remain with his master for a term of four or five years. The master mechanic looked for an ideal youth who would faithfully serve him until he was twenty-one years of age, on pay based not only on the work he could do, but also on the opportunity given him of learning a trade. Respectable parents, however, would not surrender the control of their sons to other men. They would not deprive them of the right to take a better place if one were offered, or to change their occupation if it should seem advantageous to do so. Apprenticeship, when an indenture is signed, is but a milder name for slavery. The sentence of two indentured apprentices in Philadelphia to a three-months' imprisonment for refusing to obey their master was a warning of the responsibilities incurred by both parties in such a contract. If the lad could be punished for disobedience, it was plain that the master could also be reached by the law for non-fulfillment of his part of the contract. The master mechanic was well aware that he could give little personal attention to his apprentice, and that in signing an indenture he assumed duties he must delegate to foremen or journey-

¹ When the census of 1880 was taken, thirty per cent. of the persons engaged in the trades in Philadelphia were of foreign birth; in Boston, forty per cent.; in New York, fifty-six per cent.; in Chicago, sixty per cent.; and in Brooklyn, sixty-nine per cent. Large as

was the proportion of foreign-born skilled workmen then, it is probably larger now. Since the census was taken, trades-union rules excluding boys from the trades have been strictly enforced and immigration has increased.

men; so, although a few indentures were made, chiefly in New York and Chicago, the attempt to revive the old apprentice system was not successful.

The Chicago master plumbers then devised what is known as the Chicago plan. The master still endeavored to retain the service of his apprentice for a term of years, but by association rules instead of by legal documents. The lad was to be discouraged from leaving his employer by placing difficulties in the way of his obtaining work from any other member of the association. The main feature of this plan, however, and its valuable one, was that it recognized the fact that, *owing to the modern subdivision of labor and to the impossibility of the master bestowing much care on his apprentice, the workshop was no longer the best place to learn a trade.* A plumbing school was therefore established. In this school the instruction was confined to lads who were employed by members of the association, the intention being to make trade-school instruction supplement workshop practice, as is done in Europe. The Chicago plan is still in operation in the plumbing trade in that city. It was a long step in the right direction, and it has proved beneficial to the trade; but it has also shown, as had been found to be the case at the trade school in New York, that if the course of instruction is thorough, a long or even a fixed term of apprenticeship is unnecessary. A long apprenticeship is objectionable because it necessitates putting a lad to a trade before it is known for what sort of work he is suited, and because it requires him to be taken from school at the time it is of the greatest importance to his future that he should remain there.

A simpler and what promises to be a better scheme was now proposed. The National Association of Builders, at a convention held in Cincinnati last February, recommended that a lad who wished to enter the building trades should go first to a trade school to learn the science and practice of his trade. When the trade-school course is finished and he has proved by an examination held by a committee of master mechanics that he has profited by it, he is to enter a workshop as a "junior." When old enough, and able to do a full day's work, he is to apply for a second examination, which, if passed, entitles him to be considered a journeyman. The name "apprentice" is to be abolished as misleading. No length of time is fixed during which the young mechanic shall serve as a junior. He may arrange to stay with one employer for a number of years, or he may work by the day. He is to pay for his instruction at the trade school, and is free to dispose of his services for what they are worth after he graduates from it. Proof of

ability, not length of service, is the test of what constitutes a mechanic in this system. The lad can take a high-school course, or even go to college, and yet not be too old to enter the trade school. The better educated the young man is, the more quickly he will be likely to learn his trade and the shorter his term as a junior will be. Trade schools, it was believed at the Cincinnati convention, might need fostering by the local associations; but when their value was appreciated, private liberality or private enterprise, as was the case with business colleges, would provide them.

This system recommended by the National Association of Builders differs from all others in its freedom from any attempt to give the employer control of the lad for a specified time, and also in ascertaining by means of examinations whether the young mechanic understands his trade. Arrangements are being made by the Builders' Exchange of Philadelphia to give it a trial in that city. If successful, it is likely to become the American apprentice system, as it is well suited to every calling in which manual skill combined with scientific knowledge is requisite. In this plan there is no need of a young man's asking the permission of a labor organization to learn how to work, or of finding an employer who has the time to teach him. He goes to the trade school to learn his trade, as the future lawyer or physician goes to the law or medical school to learn his profession. By means of the first examination those who are not likely to be good workmen are sifted out, and the second examination prevents any but competent workmen gaining admission to a trade. The value of this second examination, in making a standard of what constitutes a good workman, can hardly be overestimated. A certificate showing that it has been passed would secure the public against much of the loss now incurred through the employment of incompetent workmen.

The plan of beginning the training of the young mechanic at a trade school instead of in a workshop is not an untried one. The report which accompanies the recommendations of the National Association of Builders calls attention to the New York Trade Schools, where for some years the system has been followed of teaching young men the manual and scientific branches of their trade and letting them acquire experience and speed of execution at real work after leaving the school.

The trades-unions might wisely aid in establishing this new apprentice system. The policy of excluding lads from the trades cannot be maintained much longer. It has not accomplished its purpose of reducing the number of skilled workmen. Union men see with dissatisfaction the high wages their sons might have

earned paid, not only to foreigners who come to this country to live, but to "harvesters"—men who come from Europe each spring to work here during the busy season and return home with their savings in the autumn. The trades-unions have been built up with much labor and self-sacrifice. They are necessary for the protection of the wage-earner. They might accomplish much good and gain support where at present they excite hostility were it not for their disregard of private rights and their unwillingness or inability to consider anything but the amount of money it is possible to get from the employer. High wages are regarded as the sole test of prosperity. Five dollars a day is considered more desirable than four, even if the monthly earnings are less. The fact that the demand for an article usually diminishes as its production increases is ignored. Prices are forced up until work grows scarce, until \$4 a day does not mean \$1200 a year—hardly \$800. Then vexatious rules are made which still further increase the cost of the product. Journeymen are cautioned to work more slowly. It is argued that if five hours were made a day's work instead of ten, there would be work enough for twice as many workmen. Comment on such reasoning is unnecessary, yet it controls the actions of thousands of men. Living is made dearer, the poor are made poorer, by union rules. In nearly all callings where skilled labor is required it can safely be asserted that a journeyman receiving \$4 a day and working with a trade-school graduate at \$2 a day could produce as much as two journeymen now do for \$8, a saving in cost of twenty-five per cent. This reduction would do more to make work steady than shortening hours or closing the workshops to young men. At present each journeyman plumber has his "helper," which reduces the cost of plumbing, benefits the lad, and neither lowers wages nor makes work scarce.

In olden times the apprentices were a feature in city life. They were numerous enough to protect themselves. In 1517 the London apprentices drove from that city the foreign workmen, who they thought were monopolizing work Englishmen should have. The time may never come when it will be desirable to have American youths assert themselves in so vigorous a manner, but the time is not distant when the public schools, by means of manual-training classes, will graduate young men far better prepared to assert their rights than heretofore. Accustomed at school to the use of the wood-working and blacksmiths' tools usually employed in such classes, they can soon acquire the use of any other kind of tools. A very little instruction in a trade school or in a workshop will make their labor of consider-

able value. To obtain work, if difficulties are put in their way, they will work for low wages, and employers will be found. If such competition is as injurious to the trades as journeymen believe, it would be well for the unions to agree with the master mechanics on an apprentice system which will not shut the lads out of the trades, but which, like the one proposed by the National Association of Builders, will guard them from incompetent workmen. The competition of first-class workmen is not to be feared; the demand for good work is greater than the supply and is constantly increasing.

Although the chief aim of an apprentice system must be to turn a lad into a skilled workman, any system worthy of adoption in this country should also make sure that he is so educated as to be a good citizen. Mechanics talk of the necessity of elevating the trades. This can be accomplished only in the school-room. The well-educated lad is not only more likely to become a good workman than one who is ignorant, but he will make himself and his calling respected. The indifference of employers and the cupidity, more than the poverty, of parents are shortening the school years. It is not safe to make a liberal education the privilege of the few. The well educated may exert an influence far greater than is represented by the number of their votes, but that influence has its limit. While the learned are writing essays, the ignorant may try disastrous experiments. Every boy is entitled to a good common-school education, and as he grows to manhood opportunities should be given him to acquire a higher education. Young men eagerly make use of every chance to improve themselves, provided it is within their means and does not interfere with the work by which they must earn their living. The Chautauqua system in this country and the University Extension system in England prove that education can go hand in hand with work. American colleges by special courses and summer schools are showing a disregard of the couplet, once deemed indisputable, of the amount which should be imbibed at the Pierian spring. The land-grant colleges graduate men fitted to superintend farms and workshops. They, and even the older colleges, might also graduate mechanics and men who are to work on small farms. A special course of six months, in which a portion of each day could be given to mechanical or agricultural instruction and a portion could be passed in the lecture-room, would not only be a valuable preparation for work, but it would also make manual labor more respected than it is at present. Two classes, joint-heirs to a great heritage, who are now drawn far apart, would by such a college course be brought together. One of these

classes would find with surprise that worth was valued more than wealth ; the other, that their poorer friends have manners as good and ideas as high as their own.

The establishment of an apprentice system suitable to American wants concerns in no small degree the welfare of the nation. A brighter day will dawn on this country when the trades are controlled by American workmen. Labor

problems, which now seem threatening, will be solved. Well-educated, well-trained American workmen will not be likely to surrender any privilege, but while maintaining their own rights they will respect the rights of others. The education of the handicraftsman is a vast field as yet untilled, but which may be made to yield harvests the value of which cannot be estimated in coin.

Richard T. Auchmuty.

AN OLD SERMON.

O MAN, whoe'er thou be,
Look well about and see
How, on this mortal star,
All things compounded are
Of the four elements,
Though, to thy baffled sense,
Through many forms they range
And are so swift to change.
These, in their nature sure,
Alone do still endure,
And thou, from each in turn,
Shalt a wise lesson learn.

First thou shalt view the soil,
Given to thy patient toil :
See how the teeming earth
To all good things gives birth !
Half the year cold she lies,
Buried in snow and ice,
But when the days of spring
Back the warm sunshine bring,
Meekly she smiles again,
Forgetting all her pain,
And when we wound her fields
Harvest most rich she yields.
So when God tries thy heart
Keenly with ache and smart,
When pain and peril stand,
Threatening, at either hand,
And when the rain of grief
Brings thy spent soul relief,
See that in songs of praise
Still thy faint voice thou raise,
And that thou yield brave deeds
Although thy weak heart bleeds.

Regard thou then the sea,
Which, though so seeming free,
Yet a fixed law obeys
Through all its errant ways.
Hark ! how the breakers roar,
Beating upon the shore !

The billows, mountain high,
Threaten the very sky !
Yet there 's no angry wave,
Howe'er it foam and rave,
Dare in rebellion try
To pass its boundary.
Hear'st thou the water teach,
Louder than tongue can preach,
So shall thy firm-set will
Govern thy passions still ?
Though a fierce war they wage,
Yea, though they storm and rage,
Not one least whit shall they
Thy strong resolve dismay.

Consider then the air,
Which, passing everywhere,
Although 't is never seen,
God's greatest boon hath been.
So let thy charity
Challenge no human eye,
And, while itself doth hide,
Unto none be denied,
But both on good and ill
Its constant grace distill,
Bringing new life and cheer
To thy sad fellows here.

Mark how the mounting flame,
Returning whence it came,
Ever doth burning rise
To seek the starry skies.
There 's no imperious force
May stay its upward course ;
This world holds naught so dear
As can detain it here !
So seek thy goal above,
Unmoved by fear or love ;
Thus shalt thou learn from fire
Unswerving to aspire
From this cold breast of earth
To heaven that gave thee birth !

Zoe Dana Underhill.