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INDEPENDENCE AMONG ARTISANS.

A number of years since a hosiery factory was started in one of our country towns, and workmen for it imported from England and Wales; for a little while all went on well, but finally the company failed and the works were permanently closed.

When deprived of the factory work, most of these workmen, sensibly recognizing that work was better than idleness and bread more sustaining than any amount of grumbling, instead of becoming burdens upon the community in which they had cast their lot, set up, each of them, a hand loom or two in his little house or room, and continued the manufacture of the goods which they had produced at the factory, and by the aid of the country storekeepers disposed of them to such advantage that now they are all in independent circumstances, and can with difficulty supply the demand for their especial productions.

We cite this one of many instances which have come to our knowledge to indicate what may be done by many of those artisans with us who are now out of employment.

To our mind the past years of prosperity, of high wages, and excessive demand for workmen were, generally speaking, far more hurtful to the laboring classes than the few recent years of depression and stagnation, for in the recent and present times are sown the seeds of patience, self-denial, and self-reliance, which will bear good fruit if properly cultivated and trained.

The chronic superabundance of the labor supply in the older countries has developed some conditions full of useful suggestions to us.

Wherever we travel there we are surprised to learn that a large proportion of the smaller articles of manufacture, with which, in some instances, the trade of the world is supplied, are made by artisans in their own houses and with the simplest appliances; and we find there also, in almost every large town or city long established, business houses whose sole business it is to receive and distribute these goods, to find markets for the handiwork of the independent workman.

We know of prosperous firms in England who do a very extensive trade in this way on an investment probably of not more than \$10,000. Obtaining samples of their productions from the various artisans so employed, they intrust them to their "drummers" or "commercial travelers," who travel in every direction exhibiting them and soliciting orders; on receipt of an order the special workman is notified, and soon makes his appearance with his basket or bundle of goods, which are inspected and paid for according to previous agreement. The goods are then put up in the conventional packages and shipped according to order.

Almost every variety of article of household and builders' hardware, wooden and tin ware, brushes, brooms, etc., made by independent working men and women, are thus collected and disposed of by this one house; and this is but a sample of the hundreds that are engaged in the same business.

Thousands of our artisans could thus make themselves and families independent of corporations and capital, and secure against the pressure of hard times.

Of course it is not to be expected that all the articles thus produced would equal in finish those manufactured by improved machinery, nor that they could be sold at such a profit as if they were manufactured on a large scale; but the independent workman would neither expect nor require such profits as are necessary to the life of a corporation, with its costly buildings and machinery and its salaried officials; and he may be always sure that any intelligent labor of his will enhance the value of whatever kind of crude material it is applied to, in a measure sufficient for his needs and comfort.

While we would advise and encourage to the utmost general independent work of this kind, we recognize the need of another element to insure its pecuniary success.

Established in most cities are women's aid societies, whose charitable business it is to receive and sell the innumerable articles of women's handiwork, and whose labors in this direction have kept distress and despair from many households. These societies supply a want long and keenly felt; willing and skillful hands these were, but they could not keep the wolf from the door without the intervention of this powerful ally.

All over the land, too, in every town and city, associations of mechanics have established stores, "union" stores they are called, for the purchase of provisions and groceries at lowest prices, and the sale of them to the members of the associations at but little above cost, thereby securing in this direction to their beneficiaries all the advantages of combined capital and enterprise.

These aids to the poor and impoverished, admirable so far as they go, are still far from satisfying all the conditions; the women's aid societies help the impoverished, but rarely the poor; the "union" stores furnish cheaper food to the poor and struggling artisan, but afford no direct help to his efforts at independence.

An incentive, a hope, a certainty indeed must be held out to him, for he cannot afford to risk a day of his precious time on anything speculative; he must be assured of a strong ally before he can dare to make the effort for liberty. And in what better way can this assistance be secured than through "union" associations for the sale of every kind of handiwork produced by these workmen?

THE unparalleled feat of thirty-nine consecutive bull's-eye shots, at eight hundred yards, has been made on the Wheeling (Western Va.) range by Professor Dwight, in the competition for a position in the rifle team of this year.

WHAT AMERICANS HAVE DONE FOR TURKEY.

A late issue of the British Quarterly Review devotes a large amount of space to an appreciative survey of the incidental and secular results of recent American labors in Turkey, and shows that those labors have not only been enormously beneficial to the people of Turkey, Asiatic Turkey especially, but also the chief source of the world's scientific knowledge of the geography and ethnology of those regions. For half a century the civilizing influences at work in Asia Minor have been mainly of American origin; and it is gratifying to know that the new protectorate of the East is predisposed by faith and blood to treat with fairness if not with favor the agencies which American missionaries have established there for the amelioration of the physical and social conditions of the people, as well as for their intellectual and moral enlightenment.

Leaving out of view the work of religious reformation which our missionaries have been engaged in, not because that work is not appreciated, but because the British public is already somewhat well informed in regard to it, the Quarterly writer dwells at great length upon the more apparent results of New World efforts to introduce modern ideas and modern civilization into the very heart of the oldest part of the Old World. This is done by reviewing what Americans have accomplished in the Turkish Empire in respect to the following particulars: 1. Exploration; including some notice of the physical geography and ethnology of the country. 2. Literature and education. 3. Medical practice; and 4. The improved condition of woman.

Under the first head the reviewer notes with more or less of detail the explorations carried out by thirty or forty American students of the East, some of which, like the exploration of Palestine by Robinson and Smith, and of Armenia and Persia by Smith and Dwight, mark eras in anti-quarian research. One of the marked peculiarities of the Turkish Empire is the great number of separate races over which the Sultan so imperfectly rules. Among them are the Kurds, the Osmanli Turks, the Arabs, the Yezidees, the Greeks, the Bulgarians, the Circassians, the Copts, the Armenians, the Druses, the Maronites, and the Turcomans, besides great numbers of occasional and straggling residents, as gypsies, Persians, Hindoo Fakirs, and wanderers from the interior of Africa and from the most distant regions of Central and Eastern Asia. In answer to the question, What light have the Americans thrown upon the national characteristics of these previously little known peoples? the reviewer says that "in their published works and letters the Americans have brought out in the clearest manner the marked and peculiar characteristics of each nationality."

The tribute paid to American efforts in behalf of literature and education is even more generous, and it has been fairly earned. Fifty years ago the press was unknown in Turkey; there was not a single school book in the spoken languages of the country; and modern science was a thing undreamed of. Now, in addition to the Scriptures in all the leading languages and most of the dialects of the country, full lines of school books are published in Armeno-Turkish and Armenian, besides works in Arabic on anatomy, chemistry, natural history, physiology, botany, surgery, materia medica, mental philosophy, physical diagnosis, and astronomy. Treatises on pathology, geology, and history are in course of preparation. The reviewer says: "The testimony of those best qualified to judge in regard to the character of these books is that they are well prepared, both in respect to matter and the style of the language." Up to 1875 the mission presses at Constantinople and Beyroot had printed a total of 446,460,120 pages in Armenian, Armeno-Turkish, Greco-Turkish, Bulgarian and Arabic.

Limited space forbids any attempt to describe the educational work done in the schools and colleges established and sustained by American efforts in the Turkish dominions. Suffice it to say that there are two hundred and ninety common schools, with nearly twelve thousand pupils of both sexes; fifteen girls' boarding schools of higher grade, with between four and five hundred scholars; several high schools for young men; seven theological seminaries, and three colleges. A fourth college has recently been projected.

Most interesting is the account given of the labors of American physicians in administering to the varied wants of a people otherwise destitute of intelligent medical treatment. The reviewer says: "We find ourselves embarrassed by the great amount of information before us in regard to the character, extent, and results of this medical work in Turkey. It is all the more worthy of note because it is unknown except to a limited circle in the United States, and scarcely at all in England. For a long period of years well educated physicians and surgeons from America have been quietly working in all parts of Asiatic Turkey. These gentlemen have made extended and interesting reports in regard to the diseases of the country, the climate, the state of medical practice, and their own special labors." These reports recall apostolic times, when the gratuitous healing of the sick, the maimed, and the blind preceded and prepared the way for the work of evangelization. The reviewer takes leave of this part of his subject reluctantly, feeling that he has done scant justice to the immense amount of hard and often self-denying labors of the American physicians in Turkey, most of whom laid down their lives in the cause which they had espoused.

When the Americans first began their work in Turkey the set of public sentiment was very decidedly against the education of women; this among Christians as well as among Mohammedans. The effort to make women sharers in intellec-

tual progress was met with opposition and often with derisive laughter. Yet by perseverance and tact a public sentiment in favor of the education of women has been widely established. Several thousands of adult women have been taught to read, and the husbands and relations of these female readers are proud of them. And the new public sentiment further shows itself in the interest taken in the American schools for girls. Pashas, civil and military officers of high rank, ecclesiastics, and wealthy men of all the different nationalities attend the examinations, and express their hearty approval of the work. The aid of the press has also been successfully invoked in aid of more direct efforts on the part of intelligent and earnest American women, and the women of Turkey have been largely raised to a higher level of life thereby.

In conclusion, after speaking of the very limited financial aid which the people of England have contributed to this work, the reviewer remarks that the real aid which the Americans have received from Great Britain has been in the strong moral support which has been given them by the British Government; and he adds: "We are sure that in the future as heretofore our American brethren in their beneficent labors may count on the countenance and support of our government, as of our ambassador at Constantinople and our consular agents in different parts of the Turkish dominions. The world at large, and especially thoughtful students of social and political as well as of moral and religious questions, will watch with deep interest for the ultimate results of the efforts which the Americans are making for the regeneration of Turkey, and which have the hearty sympathy and best wishes of the people of England and of Protestant Europe."

All this was written before England's protectorate of Asiatic Turkey was publicly thought of. We are confident that the changed political relations between England and Turkey will not change in the least the attitude of English feeling toward what is specifically our American work in the East. And if England succeeds in her designs for the commercial and political renewal of Asia Minor, the good seed already planted there by American zeal and philanthropy will be not the least of the factors of the new order of things.

SOME EGGSTRAORDINARY INVENTIONS.

Unlike the Patent Offices of all other countries, the American Patent Office is in spirit and action essentially democratic. Its clientele includes nothing less than the whole people. The richest inventor seeks its certificates, and the poorest is not refused a hearing; no man so learned that his brightest thoughts may not fall within the scope of Patent Office routine; none so ignorant that, if he thinks he has a novel idea, the office will fail to give it due attention. Whether grand or simple, each new idea is courteously entertained, the ruling principle being that it is better that ninety and nine profitless ideas be patented than that one genuine and fruitful novelty should be refused its proper recognition. Some of the most important inventions have been exceedingly minute in size and insignificant in appearance; accordingly the rule very properly is to err, if at all, on the side of liberality to inventors. If an inventor's idea be good, he ought to have the benefit of it; if worthless, it certainly harms no one to let him have the exclusive control of it. And whether useful or useless must be determined in the great majority of cases by actual trial in competition with other ideas, not by any examiner's *a priori* judgment, however intelligent he may be.

In view of the broad streak of foolishness that runs through humanity as a whole, it is not at all surprising that out of the hundreds of applications for patents received by the Patent Office every week there should be a sprinkling of those open to criticism on the score of practical uselessness. Nor is it strange that among the applications granted a few should strike the uninterested observer as—funny, to say the least. The wonder is, rather, that they are so few. Possibly they seem all the more ridiculous by contrast with the high average worth and gravity of the general work of the Patent Office.

Be that as it may, it never fails to strike one as consumedly funny to be advised, under official seal and signature, that the United States have granted letters patent to A., B., or C. for—well, say a pinhole in the big end of a pickled egg!

Seriously, that is just the point of the specification upon which patent No. 205,313 was granted. The patentee calls it "a new and useful improvement in processes of treating eggs," the object of the improvement being to provide a means for preventing the bursting of pickled eggs when boiled; said means consisting in the piercing of a small hole in the egg shell over the air blister. The hole is too small to be observable, yet "sufficient to allow of the expansion that ensues when the egg is immersed in boiling water, and thus the liability of such eggs to burst their shells in boiling is obviated." By this ingenious process old eggs, the patentee avers, are made as good as new-laid eggs, and they are much cheaper. What he wants to do with his old eggs after they are boiled, he does not say. Possibly that, like the suitable instrument for piercing the shells, may constitute "the subject matter of another application now before the Patent Office." If so, we trust the application will be promptly granted; it would be such a blessed relief to travelers to have some one man monopolize the use of stale eggs, and so keep them from the breakfast tables of hotels and boarding houses.

No fear that the normal, or abnormal, food supply would be seriously diminished by this diversion of pickled eggs to other than breakfast table uses. The ubiquitous inventor has provided against that in patent No. 170,670; Mr. Joseph A. Griffin is his name. His invention relates to "that class of compounds used to facilitate and improve the processes carried on in the preparation of food, and also to improve the quality of cakes, pies, puddings, bread, biscuit, and other articles of food," in which his compound, "a substitute for eggs," is used as an ingredient. This compound, the patentee declares, is a perfect substitute for eggs in all culinary and other uses to which eggs have been commonly applied, is cheaper, and will produce better results than eggs themselves. We have diligently inquired in the markets for chickens hatched from this superior egg compound, but failing to find any we cannot furnish the reader with any particulars with regard to their appearance or quality. The substitute, the specification further states, will keep longer without decomposition than fowls' eggs, and "contains in equal amounts mere of the essential qualities for which eggs are valuable than eggs themselves."

This is most remarkable; and it must be true, or else Mr. Griffin would not have spent his money on it in patent fees. Still we must confess we have our doubts of the availability of the substitute for all egg uses, say for political purposes or for personal expostulation with an offensive public speaker. It is not clear how it could ever be made as fragrant and explosive as Mr. Stempel's eggs, for instance (Mr. Omar A. Stempel is the gentleman who patented the pinhole), or make so handy a missile to throw. Still you cannot expect everything from an invention.

As a matter of purely scientific interest we will add that Mr. Griffin's egg compound, which is so much better and cheaper than real eggs, is composed of cream tartar, tartaric acid, alum, soda bicarbonate, sugar, curcuma, gum arabic, sulphur, and starch, in proportions specified. Seeing that real eggs contain only albumen, mucus, water, and a little saline matter, the superiority of the substitute will be readily appreciated.

THE MINING OUTLOOK.

Recent accounts from our Western and Southern gold and silver mines are indicative of renewed and increasing activity and excitement; abandoned mines are being reworked at a profit, at others the forces of labor and machinery are being increased, and new ones of great richness are almost daily being discovered.

It would seem, too, from the reports, that these enterprises form a safe and legitimate channel for the outflow of long stagnant capital, and that more intelligent administration, combined with improved processes and machinery, now assure good returns where formerly, for lack of these, a general bankruptcy overwhelmed everything.

The mining fever which attacked our people just after the close of the war is still a sad recollection to many; absolute prostration alone seemed to restore them to their senses; they paid no attention to disinterested advice and warnings, none to the teachings of knowledge or experience, but threw themselves and their fortunes prone at the feet of every adventurer who had been, or said he had been, in the El Dorados of the West, and had a nugget of gold or silver to exhibit. His dictum on all points connected with mines, mining and reduction processes and machinery was received with reverence, and the results were what might have been expected—an unreasoning suspicion and abhorrence almost of all mining projects.

A healthier feeling has gradually obtained, and these important interests are now in a fair way to secure the attention they merit; but still one caution must be observed if we would guard against a return of the fever: the popular false impression that a gold or silver mine necessarily brings wealth to its owners must be corrected; it must never be lost sight of that the rules and conditions that govern other businesses must be applied even more stringently in these cases, where the management is rarely under the direct supervision of those who supply the sinews of war. Common sense is quite as necessary for the successful working of a rich bonanza as for an ore yielding but \$20 to the ton, and economical machinery and processes just as desirable.

These late mining reports, after making due allowances for high coloring, we esteem to possess much interest to all concerned in the development of our riches or the increase of industries that will afford employment to those lacking it.

In Arizona the lack of sufficient and cheap water and fuel appears to be the chief obstacle, in many instances, to very successful mining; but as the work progresses water from the shafts will be available for many of the purposes, while simpler methods of working or the transportation of the ores from various mines to one central, favorably located reduction establishment will solve, as well, the question of fuel. Some of these ores are said to yield, on an average, from \$400 to \$1,200 per ton, and from one mine an nugget of native silver weighing over a hundred pounds has just been taken.

Idaho's and Montana's prospects are brightened by further development of their mines and a good increase of milling machinery.

Utah miners very generally appear to be satisfied with their condition and outlook; the largely increasing investments there, as well as the better results which experience has given, inspire them with confidence.

In Colorado, Nevada, and California, the older gold and silver mining States, many rich deposits of ore have recently

been opened, and never, apparently, has there been such a healthy condition of mining matters there as at present.

In all these places many of the old confidence operators are, of course, to be found, and many are the victims who learn the danger of hasting to get rich; but with all this it is beyond question that never before have there been such opportunities as there now are for intelligent and profitable investments in mining properties there.

We are not unmindful of the fact that just now there are great excitement and speculation in certain mining stocks that are manipulated in San Francisco, and that naturally enough, in many instances, the reports from mining regions are colored with the view of taking advantage of these conditions; but of speculative stocks we are not speaking; we write of the real, substantial wealth of the mines.

On our Atlantic coast, from Virginia to Georgia, there is also a renewal of interest in gold mining, and reason to believe that safe investments may be made there.

In every direction investments of English capital in our mines are reported and welcomed, and undoubtedly these investments are the strongest possible expressions of faith in their values, but they are no guarantees of them. We should prefer to rely on the opinions of our own experts, who have for fifteen years or more been combining theory and practice with careful observation of our special mineral deposits.

No Hard Times in "Temperance" Villages.

Mr. William E. Dodge, the well known manufacturer and merchant of this city, when recently before the Congressional Labor Committee as a witness, said that his firm, employing some 2,000 persons, made it a rule that persons engaged in their manufacturing villages should not use intoxicating drinks. As a consequence there was no complaint of hard times among them. The villages named by him were: Ansonia, Conn.; Dodge Mills, near Williamsport, Penn.; Tobyhanna Mills, Warren County, Penn.; St. Simon's Mills, Ga.; Wabasheen Mills and Magnattivan Mills, Ontario, Canada, and Collingswood Mills, Canada. "Many of our employes," Mr. Dodge continued, "are property owners. They own their dwellings and have reared large families. Some of them have been with us ten, twenty, and twenty-five years. Our men have not suffered during this depression. They have accepted wages which we could pay, and there has, therefore, been no special distress among them. Crime is practically unknown among them."

The Use of Salt for Museum Purposes.

At a recent meeting of the Geneva Society of Physics and Natural History, Professor Alph. de Candolle exhibited a glass jar containing fruits of the coffee plant, collected before maturity, in Mexico, preserved in a liquid which chemical analysis proved to be salt water. It is fifty years since the jar thus filled was hermetically sealed, under the eyes of Aug. Pyr. de Candolle, and to-day the coffee beans which it contains are in a thoroughly satisfactory state of preservation. The water contains a solution of common salt, and very small quantities of other chlorides or salts. No gas was found in solution, showing that the water must have been boiled, and introduced while hot into the jar. This experiment may prove a valuable hint to curators of natural history and medical museums as to the substitution of salt water for alcohol (the inconvenience of which every one knows) for the preservation of organic specimens.

Pre-eminence of the American Exhibits.

The London Times of August 24, in an editorial comment on a two column description of the mechanical display of the United States at Paris, which it prints, remarks that "the pre-eminence of the mechanical genius of the citizens of the United States may be admitted, and is illustrated, not for the first time, in the Exhibition at Paris."

The Times, without pretending to exhaust the whole secret of the phenomenon of inventive genius on this side the Atlantic, finds reasons therefor in the greater efficiency of labor here, and the increased cost and difficulty of hiring it. The conditions of the Union as an economic society, it holds, drive our inhabitants toward invention, and here, as elsewhere, necessity may be said to be the mother of it.

American Institute Exhibition.

Persons intending to exhibit this fall should at once forward their applications for space to the General Superintendent, New York, otherwise they will not be able to secure the room they may desire. The managers are exceedingly anxious to have the exhibition in good shape upon opening day (September 11), and will do so if the exhibitors will only be as prompt as they should be in placing their exhibits in order.

Decision in the Crusher Case.

The decision of Judge Blatchford, United States Circuit Court, in the case of the Blake Crusher Company versus Copeland & Dodge, owners of the Alden Crusher, was rendered August 8. The Alden patent was held to infringe the Blake crusher, and a preliminary injunction was granted.

ACACIA IN CRACKED NIPPLE.—A simple means recommended by an Italian physician, for the relief of cracked nipple, is to powder it repeatedly with pulverized gum arabic. Immediately after the child has sucked it should be thoroughly dusted over the surface, and the nipple protected from the air.