

Labor the Basis of Republican Institutions.

If, as has been said, idleness is the mother of mischief, occupation and industry are the progenitors of virtue and good order. The universal haste for wealth, coupled with unwillingness to toil for its acquisition, is fruitful of crime and destructive of business integrity. Throughout the whole country the cities and towns are thronged with idle Micawbers, waiting for something to turn up by which they may become possessed of a fortune and pass their lives in luxurious ease. Such men are the bane of society. They seem to believe that labor is degrading, and think nothing more honorable than sumptuous dependence. And yet society is filled with them. Not a reader of this paragraph but can point to those within his immediate acquaintance.

The folly of the present age is its want of appreciation of true manliness. He is not the best type of American nobility who apes the foreign aristocracy and considers honest labor degrading and unworthy. The genius of our democracy is the exaltation of labor and the laborer; and its triumph is the vindication of toil from the contempt of an effete nobility that clings with the tenacity of life to ancient ideas and obsolete distinctions. We are a great and a progressive nation because we are shaping out our own destiny by the iron hand of labor. We have been singularly successful in our experiment of self-government because we made it the first principle of conduct to depend upon ourselves for results, and not to hope for anything from ancestral title or inherited wealth. The founders of the American republic were men of independence. When they landed on these shores they shook off the trammels of European customs, they laid aside forever the pride of family that had enervated the youth of their native land, and with an unswerving fidelity to the great principles of Democracy, laid the foundations of a government whose corner-stone was respect for honest industry.

It was the law among the ancient Jews, that every man should learn a trade. He was not bound by any obligation to follow it, for if his inclinations prompted him to afterward seek another profession, he was at liberty to do so. The wisdom of this law commends itself to every mind. If, in adverse times, misfortune should lay its hand upon them, and they should be compelled to leave their chosen pursuits, they were provided with an occupation which was a safeguard against extreme poverty or want. If such a law existed in this country it would prevent many of the evils that now prevail, and render our people more prosperous and happy. However true to the principles of democracy our fathers may have been, we are fast leaving them behind. Instead of honoring labor we are attempting to degrade it. Parents, ambitious for their children, often express the hope that their lot will not be so arduous or toilsome as their own has been, forgetting that by their labor the country has been blessed, and because of the industry of their sons, generations yet to come will be grateful that they were born in republican America.

It is the first duty of parents to instill into the minds of their children the necessity and the dignity of labor. To be useful in any sphere of life should be the ambition of our youth. Our vast fields of enterprise invite competition and promise satisfactory rewards. The producer is he whose loss is most felt by society. Success in mechanic art is as honorable as professional eminence; agricultural industry is far more profitable to the nation than ambitious statesmanship. The watchwords of democracy are that all honest labor is honorable. It is not what one does, but the manner of doing it, that dignifies the man. Nothing can be more degrading than a quack in medicine, a pettifogger in law, or a blockhead in priestly garments—no one can be more honorable than an industrious and skillful artisan or a faithful and intelligent tiller of the soil.

It is a mean and worthless spirit that despises the garb of the laborer and scorns to welcome him to places of equity. Nothing can be more false than our usual idea and definition of a gentleman. It is not the dress, it is not the employment that permits this appellation. It is the kindly heart, the industrious virtuous life that makes the gentleman. A career of idleness is generally a career of crime. It is not family or wealth that entitles one to honor. It is the intelligent manhood that entitles him to respect. We honor those who have risen from humble spheres of life to places of trust and usefulness, not because of the riches they possess, not because of the position they occupy, but because of the energy and industry which they manifested in the attainment of what they have. Fortune smiles on some while she frowns on others, but her favorite is no more entitled to honor than he who with equal industry strove to win her regard. The world's distinctions are often wrong. It is diligent, patient labor that is to be honored by the true friends of republican institutions. The drone in society, whether possessed of millions or dependent upon public charity, should be despised and avoided by every honest man. We, as a nation, must change our ideas of nobility, or we shall decline in prosperity. He is only noble who uses to the best advantage the powers of body and mind with which his Creator has endowed him. Any claim not founded on this is false and pernicious. When the people of any nation cease to give to labor its true dignity and affect to despise the laborer, their own dishonor is assured, and the doom of national prosperity is pronounced.—*Erie Dispatch.*

Foreign Recognition of American Surgery.

One of the most competent of French surgeons, M. Bouvier, lately, in the most flattering terms, commended to the notice of the Academy of Medicine two forms of apparatus invented by Dr. C. F. Taylor, of 1,303 Broadway, New York City, and designed, the one for the correction of vertebral deviations consequent upon Pott's disease, and the other for the treatment of hip-joint diseases. The peculiar beauty of this apparatus is

that it combines all the advantages of horizontal position, as if the patient were reclining upon a bed, while at the same time the privilege is granted him of exercise and fresh air. In form, the apparatus is a simple lever which raises the superior part of the spinal column by using the transverse processes as a fulcrum, so that while safely increasing pressure on the articulations of the transverse processes, pressure on the bodies of the diseased vertebrae is considerably diminished. The instrument is hinged and acts as a supplementary vertebral column. Its arrangement is such that the degree of force employed may be modified at the discretion of the attending physician, and hence the treatment may be rendered constantly and regularly progressive.

Doctor Taylor is one of the most skillful practitioners, in the specialty in which he treats, in this country. For spinal and hip diseases, contraction of limbs, and kindred complaints, he manifests wonderful skill. His apparatus for straightening contracted muscles, and manipulating his patients by the use of the many mechanical contrivances he has invented and put in use at his rooms, are very ingenious. Instead of requiring his patients to conform to a special exercising chair or extending frame, or whatever other contrivance it may be necessary to use, he makes new applications to meet the form, size, and necessities of his patients, and from this source alone greater comfort as well as benefit, is administered to the afflicted, than is possible where a set of mechanical contrivances are made to perform the same office on various-sized persons, although the maladies may be the same. Every case of malformation or disease of bone or muscle must be treated differently at certain stages, and Doctor Taylor has the requisite mechanical genius to make his own implements, and the skill and judgment requisite for their most favorable application. Doctor Taylor has published an illustrated work on the diseases of which he treats, which will interest the afflicted.

At the late Exposition, Dr. Taylor's apparatus was the most noticeable feature in the section of orthopedy, and in their official report the Imperial Commissioners incorporated the communication in full of M. Bouvier to the French Academy, as noted above, thus paying a marked compliment to his opinion, and making a double endorsement, in the most emphatic terms, of the merits of Dr. Taylor's inventions.

Hints to Public Speakers and Singers.

When singing, writes Dion Boucicault, in the *Pall Mall Gazette*, the vowels are principally used because it is necessary to dwell upon a note, and we cannot prolong a consonant. In speaking, on the contrary, we depend for articulation on the consonants, but their short percussive sound does not travel. When we shout, or in open air speaking, which partakes of shouting, we prolong the vowels, drawing the syllable at each word, but what we gain in sound is lost in clearness of articulation; expression is lost in monotony; because its fineness depends on the infinite variety of which the consonant is capable and bestows on the vowel. Two thousand voices singing or speaking together, travel no further than one voice. They may fill a certain area more completely with that intricacy of waves which, when very troublesome, we call a din, but each voice exerts its own influence on the air according to its power, and dies away within certain limits. A second voice acts independently, and produces its own separate effect, not fortifying the first but distinct from it; and so with any number of voices—say ten thousand—shouting together, if a single trumpeter were placed among them, the notes of his trumpet would be heard clearly at a distance where the Babel of voices would have expired in a murmur. Yet among the din produced by the ten thousand notes the trumpet would be inaudible. To illustrate this theory more clearly, it is plain that two thousand persons cannot throw stones further than one person. It is true that the air within certain limits will be more full of stones, but they will all come to the ground within a limited area.

MANUFACTURING, MINING, AND RAILROAD ITEMS.

The existence of the gold fields of Nova Scotia is probably known to but few of our readers, yet a report, a little rose-colored, perhaps, which has been sent us while recording progress and results, claims that compared to the extent of gold producing area, the quantity of quartz mined, or the number of men employed, these fields are by far the most productive in the world. In 1866 the yield of gold was 25,454 ounces; for this year, according to every indication, it will exceed 30,000 ounces, the gross value being \$600,000, or one half the value of their great staple, the coal yield. During the six years since gold was first discovered here, about 4½ tons of the precious metal has been found. The average amount to each miner last year was 57 grains per day; its value, about \$3.50. There are less than 800 persons engaged in the mines. The future prospect for these mines is cheering, both American and Canadian capitalists are investing in them, and means are being taken to work them on a larger scale and system, insuring larger returns and less waste.

At the last conference of the associated North German railways, resolutions were passed looking to the promotion of the comforts of the traveling public. Among others, it was decided to warm the passenger cars by circulating a continuous current of hot water in pipes through the whole train. The heating apparatus occupies a special car, which is placed next the locomotive, and short lengths of India-rubber pipe will form connections between the cars.

Canadian railroads carried two and a half million passengers last year, and killed only seventy-seven of them. Their receipts were eleven millions, or less than ten percent of the cost. Nearly nine thousand persons are employed, of whom almost two thirds belong to the Grand Trunk road alone.

California has found a new source of wealth in her iron deposits. It is claimed that there is scarcely a county in the State in which the mineral is not found in greater or less value. The Coast Range, though never thoroughly explored for iron ore, has many and extensive surface deposits, which indicate considerable richness.

We learn from good authority that Mr. E. A. Stevens, of Hoboken, is about to engage in the enterprise of constructing horse railroads in the streets of Paris, and has engaged the engineering services of Gen. G. B. McClellan. London, also, may soon be supplied with these democratic traveling con-

veniences, the Metropolitan Tramway company having given notice of intended application to Parliament to lay down rails for six different roads.

Two tons, or 16,000 yards of wadding, is the daily product of one establishment in Pawtucket, R. I. In addition to this amount, the works turn out nearly three tons daily of cotton waste, for use in cleaning machinery.

We have noticed in many of our exchanges the astounding announcement that a Canadian inventor has constructed an arrangement for coupling cars automatically. Let him come to our Patent office and we will show him a hundred such contrivances, and the exhibition might be repeated every month with an entirely new stock, fully equal in variety and ingenuity to those now on hand. The number of these self-couplers annually patented is astonishing, but railroad companies seem reluctant to adopt them.

NEW PUBLICATIONS.

DICKENS' WORKS.

T. B. Peterson & Brothers, Philadelphia, are issuing an edition of Dickens' works so cheap that almost every one can afford a complete set of this entertaining author's writings. Martin Cuzzlewit, Dombey & Son, Nicholas Nickleby, and Christmas Stories are the three works already reproduced in this cheap form. Price 25 cents each.

THE BROADWAY.

Geo. Routledge & Son, London, and 416 Broome street, New York. Price \$3 a year; 25c., single numbers. This new monthly is one of the most entertaining of the many magazines now publishing. The illustrations are well done, and the subjects generally partake of the humorous, and vividly portray incidents in the stories in which they appear.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent new inventions and foreign patents.

MACHINE FOR MAKING MOLDS FOR STEREO-TYPING.—John McNair, New Orleans, La.—This invention relates to a new and improved device whereby letter types may be pressed directly into a plastic substance and a stereotype mold obtained direct, or without the trouble of first "setting up" the type and then taking a cast from them, as is now practiced.

LOCK.—H. Jackson, New York city.—This invention consists of an expanding stump arranged in relation with tumbler and a slide bolt of peculiar construction, whereby a greater security than hitherto is obtained against the picking of the lock; and the invention further consists in corrugating or notching one edge of the tumblers and having a pin on a slide to engage with the notches and prevent the tumblers being moved or tampered with by a pick when brought in contact with the stump, which arrangement also serves as a safeguard against picking. The invention also consists in a novel manner of attaching the springs to the tumblers, and also in a step for the tumblers.

GRAVER.—Ralph S. Mershon, Zanesville, Ohio.—The principal object of this invention is to so construct a graver that it can be readily adjusted and set in use upon a surface, whether more or less concave or hollow.

SEED PLANTER.—Joseph R. Frantz, Goodville, Pa.—This invention consists of seed hoppers supported upon a carrying or supporting frame, the sides of said hopper being operated by gearing from the driving wheel, and of covering shoes also operated by said frame, by means of which the seeds are planted and covered at the same time.

CHURN.—Thomas Payne, Grand Rapids, Mich.—This invention relates to a new and improved churn of that class in which a rotary dasher is employed, and it consists in a novel manner of constructing the dasher, whereby it is believed that the cream is acted upon in a more favorable manner than hitherto for the expeditious production of superior butter.

EXTENSION LADDER.—Hosea Barnes, Semers, Wis.—This invention consists in connecting together several sections or lengths of a ladder (three, more or less) in such a manner that the sections may be rigidly connected so as to form one continuous length when required, and admit of the lengths being folded when not required for use, and also adjusted so as to form a step ladder when required.

GLOBE VALVE.—John B. Lowell, Baltimore, Md.—In this invention a new device is employed for grinding the valve to its seat without removing the valve.

BURNING CULM AND OTHER FUEL.—Alfred Dart, Carbonale, Pa.—In this invention the stove is so constructed that the fuel will be burned in their strata, in order that oxygen may pass freely through it, and thereby better keep up combustion.

FIELD ROLLER.—S. B. Maan, Indianapolis, Ind.—In this invention the roller is a hollow cylinder in which are placed heavy metallic balls, for the purpose of increasing the weight without changing the bulk of the apparatus. The spring that supports the seat is also arranged in a novel manner.

AUTOMATIC GATE.—Charles F. Mawbey, Woodbridge, N. J.—In this invention a platform is arranged on each side of the gates, and connected with them by a peculiar and exceedingly simple and effective device. When a horse or other weight comes upon either platform the gates fly open from him. As the horse passes through and steps upon the other platform, the latter operates to hold the gates open till the carriage has passed, when they swing together and latch by their own weight.

COMBINED PLANTER AND CULTIVATOR.—John Vaughn, College Grove, Tenn.—This invention consists in a new combination of the planter, cultivator, revolving hoe, plow, scraper, and revolving rake, by means of which every operation required in raising cotton can be performed with one instrument, and fifty per cent of the time and labor required by the old methods can be saved.

LANTERN.—J. H. Richardson, Philadelphia, Pa.—This invention relates to a new and improved lantern, designed more especially for ship and railroad lanterns. The invention consists in feeding the flame with oxygen from the top of the lantern, a direct draft upward from the bottom through the top of the same being avoided, whereby the flame will not be liable to be extinguished by gusts of wind or the swinging of the lantern, as is now the case with those which have a draft of air passing through them from the bottom upward and are exposed to or carried in the open air.

FENCE.—H. A. Kephart, Fletcher, Ohio.—This invention relates to a new and improved fence for farm purposes, and of that class which are commonly termed portable, and it consists in a novel manner of applying the stakes to the panels, whereby the fence may be firmly supported in position with the bottoms of its panels above the surface of the ground.

IMPROVEMENT IN DRYING AND SEASONING LUMBER.—E. C. Bender, York, Pa., and Wm. Steffe, Philadelphia, Pa.—This invention relates to a new and improved process of treating lumber, for the purpose of drying and seasoning it, and is designed to remedy serious defects in processes heretofore adopted for that purpose, which is most effectually accomplished, by the use of a close chamber, or kiln, provided with proper flues and dampers, for controlling and regulating the temperature and discharging the moisture, by which means the pores of the wood are kept open a sufficient length of time to allow of the absorption and carrying off of the moisture from their interior as well as the exterior, thus seasoning without injury by checking or otherwise, and with less attention, labor, and fuel than by any other process patented Dec. 17th; see claim in last issue.

HORSE AND WAGON BRAKE.—G. Haberland, Pontiac, Ill.—This invention relates to a new device for preventing horses from running away, and consists in arranging straps around the horses' legs, which are connected by suitable lines or cords, with a drum fitted to the front part of the wagon. By revolving the drum, the lines will be wound around it, and the horses feet will be drawn together, preventing the horse from running.

ROAD SCRAPER.—L. W. T. Lodge, Petersburg, Ky.—This invention relates to an improvement in the construction of scrapers for excavating road beds and other similar purposes.