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## ObStacles in the way of the success of inventors

The difficulties which want of means and influence places in tı e way of inventors, the compulsory exactions of poverty and the discouragements of those who should stand ready to
aid with their influence any attempt to relieve the onus of aid with their influence any attempt to relieve the onus of labor and increase the return of capital employed, seem to be
enough to dishearterfthose who hope by their improvements to benefit themselves while adding greatly to the advantage of their fellows. But these difficulties overcome, there are others still greater in the path to pecuniary success, which must be removed before the benefit intended can be realized by the mass. We allude more particularly to the jealousy with which any improvement, dèeserving the namé, is viewe by those whom it will most directly and certainly benefit.
Possessors of capital, whether it is invested in mechanical enterprises or ntt, view with more than a critical eye any device which proposes to aid them in the increase of their capi appears as a harmless visionary, annoying and verbose, impractical and troublesome, well got rid of by a few words of milk-and-water encouragement, or perhaps by a bluff notice that their time is too valuable to waste on him. In conse quence of these rebuffs, perhaps often repeated, the disap pointed and disheartened inventor ceases effort, sees afterward his invention reproduced by another, made one of the
grand inventions of the age, and spends the remainder of his life in legal squabbles, out of which he will consider himsel fortunate to secure the crumbs of the feast at which the capitalist and the plagiarist fare sumptuously.
Singularly enough it is that those whose experience has
driven them through a similar course, and who by a lucky stroke have achieved pecuniary independence are among the last to recogniz̈e the value of an invention or the claims of the inventor. And those whose fame, if not fortune, has been attained by their persistence seem ashamed to make their virtue of perseverance glorious by encouraging followers in the same path. It is almost as difficult for an inventor to procure even an interview with the men whose inventions and discoveries have made their names famous as to achieve a presentation to Queen Victoria or the Emperor Louis Napoleon. But
these notable men are not ignorant or forgetful of the means these notable men are not ignorant or forgetful of the means
that gave them fame; for at dinners given in their honor and that gave them fame; for at dinners given in their honor and
in sketches or biographies of their lives they are not ashamed in sketches or biographies of their lives they are not ashamed
to rehearse the circumstances of annoyance, the obstacles, the to rehearse the circumstances of annoyance, the obstacles, the
difficulties that faced them and troubled them before success difficulties that faced them and troubled them before success
was assured. But they seem to suppose that their inventions and their value to the world absolve them from any further concern about the welfare of the race or the well-doing of individuals. The old British doctrine, "Once a subject always a subject," is entirely applicable to the realm of invention. No man who has worried through the annoyance, and trouble, and travail, and agony of discovery, and come out successful against great odds, has any right to repudiate his allegiance to the great republic of improvers and refuse his aid to those who strive to reach his eminence.
But these are not the worst obstacles in the way of the inventor. His patent secured, the favorable opinion of experts and influential persons obtained, and even a fair trial having proved the superiority of his device over others used for a similar purpose, he must meet the unreasonable objections of
unreasoning or captious men. He may have considered his path easy after having demonstrated by fair experiment the absolute valve of his invention, but the road is still rough.

Introducing his device and procuring the assent of the party to whom he wishes to dispose of a machine, or right, he is not certain that he has made a success, even in a single in stance. Although no direct objection can be urged against the facts adduced or the demonstration shown by experiment not unfrequently the purchaser and user will bring forward some objection not really tenable, and without logical argument to support it, but which, to him, is all-sufficient. It is difficult to manage such cases. It is hard tocombat prejudice Attachment to old forms of tools, to machinery perfectly un-
derstood, to familiar mrethods, is hard to overcome. With all their faults the mechanic loves his own tools and own methods the best. Only the all-powerful influence of interest can avail to overcome this sentiment.
This conservatism-vulgarly called old-fogyism-among mechanics, is the hardest difficulty met by the inventor and introducer of new tools, appliances, and methods. Is there not too much of it ; too much of a disposition to give the cold shoulder to all projected, or even perficcted improvernents; too much of the old time sneer of " visiontry" directed to the inventor, too much of an adherence to the old and not enough aptention to the new, by our mechanics and manufacturers but for the me banic and the manufacturer to ar fairly but for the impartially, test honestly, and judge rightly, than to alice to work injury to themselves and produce disapprejudice to work injury to

## DOES AMERICAN INDUSTRI NEED PROTECTION ?

The man who undertakes to answer the question which stands as the caption of this article, must be one of broad ews. A mere suporficial observer must necessarily err in is conclul and of careful and thorough thinkers. It is not our intention to definitely answer this question here, but to call attention to a point, which, in all that we see written or hear spoken upo the subject, seems to be in a measure overlooked.
Commissioner Wells has teld us in his able report, that a tariff is a tax.-Admitted. He also asserts that a tariff on imports is a tax that, under all circumstances, is paid wholly or in part by the consumer. Granted also
The general argument against protection based upon this well understood and admitted fact, is that the imposition of protective duties on special articles of manufacture raises the price of these articles to the entire mass of consumers, while few are enriched by their production. The general answer o this argument which is as old as the idea of protection it self, is, that the advantages which accrue to the common wealth from the protection of special industries, by the wis mposition of duties, compensate for the increased price of the axed products. We believe this position is sound, but with out rehearsing the arguments usually put forth in its support we will at once state our proposition. The political health of ny commonwealth demands a diversity of industries. The cheap lands and he high rates of labor prevalent in the United States, as compared with Europe, naturally tend to unduly develop agriculture, at the expense of many industrie of vital importance to the general good. These latter, fostered by a judicious legislation, can be sustained without detriment to the agricultural interest.
It is unwise to be dependent upon foreign sources for any mportant production. The history of the world teaches us that the relations between nations are liable to frequent and serious disturbance, and that the increase of values upon aricles of import consequent upon waris often enough to make the domestic manufacture of such commodities remunerative or a decade, if distributed equally during such a period.
But especialy it dangerous to fail in the protection such industries as furnish material for national defence. All governments have recognized this fact, and have either taken
full control of them or have made it certain that the cutting off of a foreign source of supply would not prove a source of mbarrassment. The same principle can and ought to be ap plied to such productions as are essential to the comfort of the people at large. It is easy to imagine the distress which would be ffelt in some European states if the importation of breadstuffs' should be suddenly stopped. Our own land is so wide and its products so diversified that it would be difficult to name a commodity which, if its importation should at once cease, would now seriously embarrass the Government, or mawe think, to see how the comfort of the people; but it is easy home production of-say iron for example, and so stimulate its importation, as to render such a contingency as we have named not only possible but probable.
There is another reason why national prosperity is depend nt, among other things upon diversified occupations. It i by this neans only that the full mental power of the popula tion can be developed. All are not adapted to pursue the same calling, and different pursuits are as necessary to the health of a nation as different articles of diet to bodily health.
The danger of enriching a few at the expense of the many is, in this country, limited by a free competition; and we are not in sympathy with those who view a proper protective tariff as the parent of monopolies.

## CENTRAL LAKE NAVIGATION.

The grand chain of lakes occupying the center of the North American Continent together affords navigation almost oceanic in its proportions. The improvement and development of these great waters have, with the increased settlement of the
fruitful regions surrounding them, become a matter of necessity, and the public will be interested to know something of hat is now being done in this direction.
General T. J. Cram, of the Enited States Corps of Engineers,
is now directing the improvement of what is known as St Clair Flats. The improvement consists in the construction of a canal, one and one-half miles in length and three hundred feet wide, and of sufficient depth to permit the passage of vessels drawing thirteen feet at low water, and is built with a view of increasing its depth to eighteen feet in future if required. The bank is flanked by dykes of timber to be filled by the excavated earth. The timbers are to be saturated with by the excavated earth. The timbers are to be saturated with
creasote to retard decay. Few unacquainted with the subject creasote to retard decay. Few unacquainted with the subject will realize the great increase of facilities for navigation
which this canal will afford. An examination of a map of the which this canal will afford. An examination of a map of the
lakes will however show at once the importance of the work. It Chicago, other improvements worthy of notice are progres ing under the direction of the Chicago Dock and Canal Im provement Company. These improvements consist of a sys em of piers and canals having for their object the increase of ock facilities at the above named city and a huge breakwate or increased safety of the harbor. . The canals are to exten into the town, twelve hundred feet from the shore line. The breakwater is to be a very extensive structure. It is to be built in sections three hundred feet in length, to be sunk to a the water line; and it is contemplated to build thereon an mmense: storehouse.covering the entire length, if experiments shall emonstrate the safety of such a structure. The entire area the storehouse will cover, from which also the size of the breakwater can be estimated, is one hundred and fiftysix thousand feet.
The canals are to be divided by cribwork consisting of two rows of piles driven as closely together as they can be set, and capped longitudinally with timbers. The space between is to be filled with stone, and planked. The docks are to connect with every railroad in the city by special tracks and switches, so that goods can be transferred directly from the cars to the vessels. The expense of the work is estimated at two million dollars, and when completed will be as complete and con. venient as any system of inland dockage in the world.

## IS LABOR-SAVING MACHINERY THE ENEMY OF LABOR?

The old, old fight, almost interminable, and persisted in notwithstanding the recorded verdict of history-and the events now transpiring, shortly to become a portion of history is still goingon. It is between ignorance and enterprise, ull conservatism and wide awake improvement. Will this theorists ever be willing to accept facts as better than their heories? Will $\quad$ Malthurts as better than their social relations and the opinions of those philosophers whose thoughts intend to "shake mankind" and mold the ideas of theughts intend to "shake mankin ones who strive to make these thoughts a reality? Is the advance of the race by means of new scientific discovIs the advance of the race by means of new scientific discoveries and new mechanical improvements to be checked by the
bugbear of a plus oflaborersover the work to be done? Have we rached the point where we must either stay the progress of labor-saving, and time-saving, and brain-saving, to allow the muscle as wielded by the puny arm of man to exploiter us and prevent all progress by brain muscle, or allow the serfomand feudal lordiness of the past ages to return? Must all our boasted improvements in the arts and the sciences be considered only as toys for the intellect, unaffecting the well-being of the race? Shall we return to the laws of Lycurgus, and mmolate our progeny upon the altar of national advantage, as understood by the fearful disciples of Malthus?
Such would seem to be the idea of some theorists. A gentleman of culture-æsthetic and literary-called upon us a few days ago to make inquiries relative to the subject of supply and demand as concerning the progress of the race. He seemed to be devoted to the idea that the supply of labor exceed the demand, and that labor-saving contrivances were only laborer-slaying devices. The information we might give him in relation to this subject as shown by the record of patents, and their aggregate or proportionate usefulness, he supposed might be available to sustain what was his plainly preconceived view, that the laborers were many and the harvest small. He alluded to the destruction of labor (life) in our late war as something like a " providential dispensation," to weed out and lessen the choking growth of laborers in our social garden. We could not give him encouragement
That some of the centers of manufacture and commerce are overcrowded proves nothing in favor of the idea that the laborers are too many. It proves only that this labor is misdirectd, either by its possessors or others. Commeree, or rather the mercantile branch of business has grown to be a fungus on our industries. It was once used and is now calculated to be a support and aid to productive industry, but that it has proved to be either a parasite or a fungus, garroting the growth and sapping the life of industry, alluring by its temporary or periodical luxuriance, does not prove that labor is
less in demand, only that other means of living than that of direct labor make seemingly means of living than that of crowded, the country is open; if it is hard to procure even indifferent shelter and precarious living in crowded cities, both are easily obtained outside. Take the State of New York, for instance, and go through the nearest one hundred miles from the metropolis, what acres upon acres, miles upon miles of fertile soil which one passes on the line of a railroad, may be seen from the window of the swiftly gliding car, that seemingly havenever felt tbe magnetic and magical touch of the laborer's hand! This State alone has unoceupied and unused land enough to give good homes and profitable or comfortable incomes to all the possessors of muscle and brain, however un-
educated, that come to our shores from foreign lands in a ducated, that come to our shores from foreign lands in a welvemonth.
Do the improvements made by researclies in science or experiments in art add to the difficulties of labor in seeking its reward? We cannot see it. On the contrary, every advance,

