

SPIRIT OF THE COMMERCIAL AND INDUSTRIAL PRESS.

TRICKS IN ALL TRADES

(Philadelphia Trade Journal)

It is perhaps not known to many readers that some of the most successful traders are... The investigations of consumers... It is a known fact that the commercial world... In New York city and Brooklyn about three million pairs of old shoes... First, all shoes not completely worn out... Some persons wear one shoe much more than the other... It has been noticed by some deputies that while manufacturers are quite willing to put a valuation upon their manufactured product... In one instance a manufacturer of tomato catsup returned a report giving the value of his manufactured product at \$18,000... Another singular and decidedly profitable business is the manufacture on a large scale of cheap candles from white earth...

PROGRESS OF ENGINEERING IN AMERICA.

(California.)

Until the close of the last century natural power had ever been employed in its most primitive forms. Wind and water were the only motive powers called in to aid man in his labors, and the appliances to utilize them were of the simplest possible character. It is true some great engineering works were undertaken and completed, but only at large expenditure of mere labor and muscle. But with the introduction of steam, in 1778, a new wide field was opened for the exercise of the genius of the engineer and mechanic. The invention of Watts was a triumph which set men to thinking, and its successful application contributed more to the prosperity and welfare of nations and the advancement of science and mechanism in the next succeeding century than had ever been achieved by the united efforts of all previous times.

States has obtained among nations. From this paper we briefly summarize as follows. In the matter of supplying towns with water, the application of steam as a power, and the improvements made in pumping machinery, engineers have made a gain of 50 per cent. over what was accomplished twenty years ago. There are now 200 towns and cities in the United States and Canada supplied with water works, involving 1,000 miles of pipe, some of which is of cast iron. The important progress has also been made in steam engines, and we have now 127 miles of canal. Experiments are in progress in the way of steam propulsion, which it is constantly expected will meet a saving of fully 50 per cent. over present methods. In railways American engineers are making the best to support the same in the utilization of 1878, and are foremost among the nations in utilizing it. The United States leads the world in the extent of her lines, reaching some 20,000 miles, all Europe has but 10,000, and the balance of the world only 2,000. Our railroad engineers and locomotive builders lead all others. Our roads reach further and cost less than any others, and our engines pull heavier trains and run more miles in a year, or during their lifetime, than those of any other nation. The Pennsylvania railroad is pronounced one of the best, if not the best, managed railroad in the world. In regard to bridges, there are now in the United States 200 miles of these structures—(one-third of them stone or iron and two-thirds wood. (The East river bridge at New York may be instanced as the boldest conception of bridge construction ever attempted.) The matter of river improvements is just now attracting much attention, and the fact is being realized that until quite recently but little has been done in this direction. It has been demonstrated that the currents of the largest rivers may be controlled by simple brush dykes. The movable dam on the Ohio—a French idea—has already proved a success, and the best engineering talent in the country is now engaged in effecting certain needed modifications required to meet the peculiar nature and needs of our rivers. The recent improvements to navigation at Hell Gate and Flood Rock were referred to as great and novel feats of engineering. In telegraphic and gas engineering we have made wonderful strides. In the former we lead the world; in the latter, since 1850, the number of companies has increased from 50 to 200, with a capital of \$200,000,000. In metallurgy, the increase of our blast furnaces is especially notable. In the amount of iron produced, we are next to England, Germany standing third. Our steel industry, which is now second only to that of Great Britain, will exceed that country in another year. Our increase has been 50 per cent. in two years. Our mining industry is simply enormous. The petroleum industry was briefly alluded to. Our exports of that product are now the fifth on the list in point of value. In agricultural engineering our progress has been truly wonderful, and before this all other branches become as dust in the balance. In the plough alone the annual saving labor in producing our crops amounts to fully \$36,000,000 less than the same work would have cost thirty years ago. It is in ship building and maritime trade alone that we have lost ground during the last two decades. The decadence is attributed to the war of rebellion, and to equal competition with England in ship building, and the superiority of iron over wood—an industry to which our engineers and capitalists have not given proper attention; but it is confidently predicted that in the early future we shall once more assume our proper place on the ocean.

THE MOLASSES TRADE OF THE UNITED STATES FOR 1880.

The annual review of the molasses trade, published by the Shipping List, has been issued, and we present to our readers a condensation of the same. The people of the United States are probably the largest consumers of this sweet, and a large proportion of the production of the West Indies is consumed there. The importations in 1880 were not so large as that of the previous year, principally on account of the partial failure of the crop in Cuba and the other West India islands. If the sales of the retailers throughout the country were taken as a basis of calculation, however, it would appear that despite the decreased importation the consumption would show a large increase, for there is very little pure molasses sold at retail. The majority of the syrups and molasses on sale at retail stores consists of mixtures of glucose, molasses and other adulterants. Some years back molasses went into consumption just as it was imported, but this honest practice is now a thing of the past, and golden or silver drips are fast supplanting the honest old Ponce and New Orleans molasses. As a result of this change the rebelling of molasses for the sugar contained in it has become a considerable industry. The quantities thus consumed have been as follows:—Philadelphia, 93,289 hhd.; New York, 68,470 do.; Baltimore, 13,652 do.; Boston, 12,000 do., and Portland, 10,559 do.; a total of 187,440 hhd., against 213,000 hhd. in 1879, 190,000 do. in 1878, and 172,000 do. in 1877, or a little more than 75 per cent. of the total importations of foreign for the year. The falling off in the quantity bottled is accounted for by the fact of the smaller importations. The total receipts of foreign molasses at the Atlantic and Gulf ports for the year under review amounted to 32,939,014 gallons, against 34,910,936 do. in 1879, a decrease of 1,971,922 do., or 5.6 per cent., while the decrease in consumption on account of the larger stock brought forward from 1879 was only 1,405,498 gallons, or 4.07 per cent. The domestic crop of 1879-80 was much smaller than that of the previous year, amounting to only 12,202,000 gallons, which, added to the consumption of foreign as above, gives a total of 45,299,184 gallons, against 48,704,682 do. in 1879, a decrease of 3,405,498 do., or within a small fraction of 7 per cent. In regard to values, the average for 1880 was 35 cents per gallon, against a little over 26 in 1879, 33.30 in 1878, and 40.87 in 1877. Regarding the probable supply for the current year, the Shipping List says the latest advices at hand are to the effect that the yield of foreign from all the West India Islands will about equal that of last year. The domestic crop will be considerably larger, the increase being estimated at 25 per cent., or about 100,000 bbls. over that of 1879. Up to the 15th of January, 1881, the receipts at New Orleans had been 207,734 bbls. against 204,359 at the corresponding date last year. The total production of the crop 1879-80 was, according to Mr. A. Bouché, 244,708 bbls., or 12,189,190 gallons, against 12,218,404 do. in 1878-79, and 14,237,280 do. in 1877-78. The fine quality of the cane this year and its high saccharine value may, it is thought, reduce somewhat the proportion of molasses to sugar, and the excess over last year's yield will be principally made up of low grade centrifugals. Certainly thus far there has been a marked scarcity of the finer grades which have been most sought after by buyers, and sold at relatively higher prices than the common qualities, which have been in more abundant supply.

COFFEE AS IN PARIS

When we talk of coffee we are bound to admit that we are more likely to obtain it in perfect form in either France or Vienna than in any other cities on the face of the earth. There are places in London where coffee is served in the best possible style, but, somehow, one may often be disappointed, whereas it is a common article of both that in the cities above named the disappointment is so rarely experienced that the exception would prove the other way. Let us consider this matter with a view to something practical. Having for very many years taken coffee only on some special occasion, the making and managing thereof had not even had the attention of the water in any special manner. But certain improvements of health suddenly gave an interest to the subject, and then commenced a systematic investigation. The result, as will be seen, is very simple, and it must be added that, in the writer's opinion, it is perfectly satisfactory. But to secure the attention of the reader and his or her confidence in the results arrived at a few particulars must be given. Many years ago it was our custom to purchase the best Mocha roasted, but not ground. It was therefore ground as required in a hand mill, and we fondly thought we had coffee in perfection. The familiarity since acquired with coffee in a thousand places, including, of course, certain of the more important European capitals, has confirmed a suspicion we sometimes entertained that in our early days of coffee-making we really knew very little about it. But the subject having acquired special interest in connection with the necessities of a falling constitution, a new effort was made. The old coffee mill was again set to work and fresh-ground coffee was provided and was used more liberally than in the days long gone by, and the coffee as it appeared on the table was fine, but it was not such as may be obtained at a commonplace refreshment in Paris and Vienna. No, there was something wanted, and the question arose, what could that something be? Samples of coffee were obtained from several quarters, and as a matter of course samples of coffee and chicory, both as separate articles and ready mixed. It is with extreme regret we feel bound to state that grocer's coffee is, generally speaking, a very poor article, and that is one reason why the English people do not value coffee as they should. You cannot value a bad article, and thus those who compel you to have it do you a great wrong. The unsatisfactory nature of the coffee sold by the family grocer brought to mind as a reminiscence that when coffee was in use in our house many years ago it was the rule with my husband to bring some supplies from a house in London, and we would have gone without coffee sooner than use the rubbish our village purveyor would have compelled us to use if we had permitted him to supply us. Beware, then, of the family grocer and his mixture, for in all probability it consists of bad coffee commingled with an excess of chicory, and is therefore wanting in flavor, aroma, and the fine refreshing and supporting qualities of "coffee as it ought to be." That "perfect" coffee ready ground and mixed can be obtained is as certain as that a journey due North will bring one to the North Pole at last, but it is about as difficult to obtain the one as reach the other. Having tried all the mixtures, and having seriously considered the great chicory question, we have settled down to a rule which we believe to be final, and the consequence is that we take coffee daily "as in Paris" with no trouble whatever. The matter is as simple as cooking potatoes—say, it is more simple, because the labor is less and the result more certain. Let it be clearly understood therefore that without chicory you cannot make perfect coffee. You may prefer to have coffee pure, but then you do not have it as in Paris, and if you follow my advice you will probably never care for pure coffee again. The first thing is to secure a good sample of Mocha and a supply of chicory separate, and use about one-fourth of the latter to any given bulk of the former. At this point two very important matters come before us. In the first place, then, there is not so much merit in grinding coffee as it is wanted as often appears to the folks who incur the trouble of grinding. We find that if kept in close tin canisters, ready-ground coffee is good for two or three weeks. If carefully kept, of course the aroma goes, and the flavor goes, and the refreshing stimulus we desire is no longer in it. Our rule, therefore, is to buy enough at a time for a fortnight or so, as we obtain a very fine Mocha ready ground at 1s. 7½d. per lb. Where and how we get it is of no consequence, but it may be proper to say that an ordinary shopkeeper would probably charge 1s. 10d. for a similar article. It remains then to make the coffee. A common coffee-pot suffices, and the commonest kind of boiling water. We want no percolators or extractors, and indeed, if this paper has any value, it will perhaps consist in the prescription of an exceedingly simple plan of ensuring coffee "as in Paris." Put into the pot a teaspoonful of coffee and two teaspoonfuls of chicory for every three breakfast cups of infusion required. Put the pot on the hot plate for a few moments to warm the coffee, then pour in the boiling water and put the pot on the fire, and when the coffee boils pour it out and return it a few times in the "old-fashioned way," for there is no hot-ber way; and you want no egg-shells, no sole-skins, and no lingslows, for if you are smart in your movements and then leave the pot alone for five minutes the infusion will be as clear as an honest man's conscience, and you have but to pour it out into the cups and enjoy it. Having made it you must drink it, and here it must be recorded that as a breakfast beverage it is certainly better with hot water than with cold milk. The why and the wherefore cannot be explained by the writer of this, but the fact is not to be doubted that scalding the milk improves the flavor and the wholesomeness of the coffee. It should be strong, so as to require reducing with milk and sweetening with sugar, and (and it is a question if it is not equivalent to meat and drink, for assuredly it is as full of support as Atlas, who once took the earth upon his back, and is said to have thrown it nothing of it. Conversing lately with a friend on this subject, he said that when in a Continental hotel he found it a very easy matter to conform to the Continental rule of eating only a biscuit or light roll with his morning coffee. "For," said he, "there is so much support in their splendid coffee that I can do a long and heavy morning's work in picture galleries and hard walking, and want nothing after my coffee and roll until I return at noon to the substantial and savory déjeuner. At home I take tea with bacon and eggs, but I prefer the Continental fashion of grand coffee and but little to eat with it." Those to whom, by reason of a day's engagements, it is a matter of importance to make a hearty breakfast, "coffee as in Paris" may be less desirable than appears. At all events, in our household, when we have any reason to begin the day with a good meal, we take care to order tea for breakfast. Taking a broad view of the subject, and with regard to health, it seems that tea is an overpowering sort of beverage, and, as a rule, is fit for you as we at the beginning of the day. There yet remain, says the Garden, a couple points worthy of notice, in respect of

which it is necessary to be tried. Coffee is a powerful way, a valuable medicine, and is often a remedy in cases of sudden congestion of the brain, or in cases of stupefaction from poison or other causes. Pure coffee should be used, for all the stimulating qualities that are in it are such as to excite, and unless the medical man gives special directions, it may be said to be a stimulant. A friend who offers much from coffee, says that a small cup of hot coffee, with a little sugar, taken before turning out of bed in the morning, affords him so much relief that he can assign no limits to its value. It is rather provokes than depresses the system, and a certain amount of coffee, therefore, is a strength of the infusion, and then it is a course.—Exchange

SOMETHING ABOUT MINING INVESTMENTS AND OPERATIONS.

It is a very difficult matter for people to understand when a mine to form accurately upon the value and capacity of mining property. The judgment from their selections of mines and stocks and kindred enterprises, one property appears pretty much like another to a home whose worthlessness is apparent to a miner may be the very one of several that receives favorable attention with the capitalists. A class of men who assert that it generally costs dollars to mine and mill one dollar's worth of silver, the very ones who are satisfied with nothing but a return of five or ten dollars for every dollar invested when it comes to a mining enterprise. These men are very sure to embark in such a nature that has no earthly chance of success, properties as they select are what are largely of the high average cost of the extraction of precious metals, because they are often worked by moneyed men become the prey of shrewd speculators and enthusiasts because they do not take a sensible view of mining affairs. They believe that when they profess to believe nothing. Extraordinary profits cannot be expected unless from a property whose past record warrants great expectations. They do not usually take this fact into consideration, consequently a good talker possessing a vivid imagination, to use the mildest kind of a term, would every time with a poor mine, as against a representation and a good mine. The absurdly unreasonable character of a promoter's statements never dawn upon the would-be investor. It is the original owner is not sharp enough to see what he has, and that a novice in mining like him is shrewd enough to steal a march on his mining brother—when in reality he stands no better off with the latter than he does of saving money and silver from the rock than do the process. The ages have been required to render shrewd investors will avoid many chances of disaster. heed what we are about to say. Every mineral vein is not capable of being made a paying mine that can support a company and be worked from headquarters thousands of miles away. The greater the distance the larger should be the mine in order to pay for the trouble of visiting and managing the same. Every man cannot manage a mining enterprise. A poor manager will prevent a really valuable mine from paying. As much experience and skill is required in a superintendent as in the director of a manufacturing establishment. A mine cannot be everything, including new processes or reduction tunnels. Too many heavily paid officials do not also generally too much for it. A mine should be operated almost as economically after being purchased by a company as when worked by the original owner. Shareholders should never believe the promises better for profits because the company is composed of a lot of nice men or prominent citizens. They are generally merely figure heads, or at all events are incapable of running a mine. Better have a cheap going mine that is an entire stranger. Never invest in tunnel or smelting enterprises. The former are never known to win, and the latter only one out of a hundred. When you have money you put it into a new process, own up that you are a fool and go and give the money to the poor. The following fallacies cannot be too severely denounced. That lodes or mines grow richer and larger with depth (bait very generally used to catch gullible that vertical fissure veins are better than any other kind, or richer and more productive than deposits flat veins, that all a mine wants to make it as good as any other is development—in other words all that is needed to catch mineral is a hole in the ground. It is remembered that if what are usually termed fissure veins of anything like a vertical character do not pay well somewhere on the surface, they are not going to do so at great depth, that there are generally but one or two and rarely half a dozen large veins in any one district, and that the probability of great mines does not insure wealth to a property. An operator declares that his mine or the company's stock is not for sale, put him or his operations on for a fraud, or else believe some more extensive prospecting scheme is on foot than appears at the sight. When it comes to mines or mining stock everything is for sale if enough can be got for it, and so are many of the ulcers and finest men of the great cities who are induced to embark in rich enterprises—at least they are willing to unload on their friends and confidants if much money is to be made by doing. To those about to invest in mines, we would say, note well what we have written above, and always take hold of a property that has already done well for a longer or shorter time in preference to one that has done nothing in the past, and which has nothing to offer except promises for the future. For mining stocks they should be considered in the same light, unless taken hold of for merely speculative purposes.—New York Indicator.