

# The Scientific American.

MUNN & COMPANY, Editors and Proprietors.

PUBLISHED WEEKLY

At No. 37 Park Row (Park Building), New York.

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TERMS—Two Dollars per annum—One Dollar in advance, and the remainder in six months.  
Single copies of the paper are on sale at the office of publication, and at all periodical stores in the United States and Canada.  
Sampson Low, Son & Co., the American Booksellers, No. 47 Ludgate Hill, London, England, are the British Agents to receive subscriptions for the SCIENTIFIC AMERICAN.  
See Prospectus on last page. No traveling agents employed.

VOL. VII NO. 18....[NEW SERIES]....Eighteenth Year.

NEW YORK, SATURDAY, NOVEMBER 1, 1862.

## THE MONEY MARKET.

We see that some of our cotemporaries attribute the present abundance of money, which is offered at the low rate of five per cent a year, to the great quantity of paper money which has been put in circulation by the Government, but we think, if the subject is thoroughly investigated, it will be found that there is no relation between the two.

Who are the money lenders? And how did they get their money?

Let us take an individual case. There is a gentleman well known to the note brokers of this city, who always has a few thousands to invest in notes that he believes will be paid, and the mode in which he obtained these thousands is perfectly plain to those who have watched his prosperous career. As it is a fair sample of the process by which most money lenders have obtained their capital, it will serve to illustrate the subject.

This man began life as a day laborer, and worked and saved until he had \$175 in the savings bank. He then invested this amount in certain styles of dry goods which he had taken pains to become familiar with, and opened a small store in the lower part of the city. The goods he bought by the piece, and offered to sell by the yard. This labor of dividing the goods into quantities which individuals wanted, of standing always ready to measure and cut off the desired number of yards, and of wrapping up the parcels and sending them home, proved more valuable to the community than the labor which the man was performing before. We mean of more money value, and this was shown in the fact that the community were willing to pay and did pay more for this service than for the other. In other words, the man made money faster in his little dry goods trade than he did working at wages; and at the end of the first year he found himself worth \$750.

To understand this matter, let us observe the facts. The \$750 worth of capital is not money, but dry goods. The fact that these goods are property, is not owing to the circumstances that they will sell for money, but results from their power of satisfying some human want. It is this power which makes them exchangeable either for money, or flour, or labor, or other things which people regard as desirable.

At the end of the second year, our capitalist was worth \$2,000, and from this time forward, by shrewdness, diligence and economy, his business increased, and his wealth accumulated, and just before the war he retired with a little over \$300,000.

During all of the time, the principal portion of the property existed in the form of dry goods. Some of these goods were in his own store, and some were scattered through the country in the hands of those to whom he had sold them, and whose notes he held. In accumulating this property, the trader had not got money out of any other person; no man was impoverished by his becoming rich. The wealth that he accumulated was an addition to the wealth of the country and the wealth of the world. All of the wealth in the world has been accumulated by the savings of individuals. Had there been no savers, there would never have been any wealth accumulated. Among the natives of Ceylon and among the Digger Indians of California no wealth

accumulates, because none of the inhabitants have the disposition and faculty to save it.

When our gentleman retired from trade, he decided to invest his property in notes, in other words to loan it on interest, and if we look into the matter, we shall find that it still exists in the form of dry goods and other merchandise. It is generally hired by business men, either manufacturers or traders, and they invest it at once in some form of property other than money. A small amount of money—about two per cent of the whole—is necessary to effect the exchanges, but the principal portion of the capital exists in the form of merchandise—and it is best for all parties and for the community that it should.

Nearly the whole of the capital that is offered to loan in Wall street and elsewhere has been accumulated in this slow way—by individuals saving a portion of their profits or incomes—producing more than they consumed. The supply is increased by the continuance of these savings. Our capitalist has more to loan at the end of each month than he had at the beginning, because he does not expend the whole of his interest money. But we cannot see how either he or any other capitalist has any more capital to loan in consequence of Secretary Chase paying out a great quantity of Treasury notes.

## THE TAX UPON CASTINGS—INJUSTICE TO SMALL MACHINE SHOPS.

It is to be regretted, that so few mechanics and manufacturers are sent by our people to represent their interests in an intelligent manner in Congress. The tax bill affords abundant evidence, that it was prepared and passed by persons unacquainted with machinery and manufactures generally. Thus for example:—

Under date of October 9, Commissioner Boutwell writes to a gentleman in Baltimore:—"Your letter of the 2d inst., containing inquiries as to whether the tax under the excise law is laid both on castings and finished machinery, without reference to the fact as to whether the component parts of said machinery have been previously taxed as castings or not, is received. I am of the opinion that the view taken by the manufacturer is sustained by the law. Castings are liable to a tax of three per cent, unless otherwise provided. When sold by the manufacturer the tax must be assessed and paid. If afterward these castings are assessed as component parts of other articles, the latter (that is the articles) will be assessed without regard to the fact of previous payment."—*New York Times*, October 16.

By this decision it will be observed, that large machine shops and manufactories, which are provided with foundries, pay a single tax upon their products that are composed partly of cast and partly of wrought metal, while the small manufacturers of such articles pay a double tax on their castings. Thus there are many small machine shops, the proprietors of which purchase their iron and brass castings from separate foundries, then they fit up these castings, and combine them with other parts made of wrought iron and steel. Now as the castings which they purchase are taxed three per cent, and their finished composite work is assessed upon its whole value, of course their castings are taxed twice. On the other hand, a large establishment in which machinery is manufactured, and which has a foundry connected therewith, escapes the tax upon their castings that are employed in printing presses, steam engines, &c. Their castings are not taxed, as such, because not sold separately. This tax will enure entirely to the benefit of large machine establishments, and tend to the ruin of smaller ones. It also falls injuriously upon a great many other products besides machinery, and its injustice will be severely felt by several classes of our manufacturers.

## STAMPING PATENTED ARTICLES.

A correspondent, referring to the paragraph on page 219, present volume of the SCIENTIFIC AMERICAN, wishes us to give further explanations touching the requirements of the law in regard to stamping the date of the patent on patented articles. He is the manufacturer of a small article made of cast iron. He states that it would be difficult to have the date of the patent cast thereon, owing to the trouble occasioned in drawing the pattern from the sand;

nor would it be readily practicable to apply a die stamp for the blow would cause breakage. How can he conveniently comply with the law? We answer that he can use an inked stamp, having a soft surface; or he can apply a paper stamp pasting it upon the article. The object of the law is to give notice to the public, and especially to the purchaser, that the article is patented. The stamp, whatever the form in which it is applied, should be reasonably durable and legible. Where the article is so small or of such a nature that no stamp can be well applied to it, then the envelope in which the thing is put up must be stamped with the date of the patent.

## TRIALS OF ENGLISH IRON-CLAD SHIPS.

We condense from the London *Artizan* some accounts of trial trips of armored vessels which have been recently made. It says:—

Saturday, August 30th, the day appointed for the trial of the *Black Prince* at full power, having been fine, the wind light off the land, and the water almost without a ripple, preparations were made for taking the ship to the trial-ground. In weighing anchor however, some delay took place in connection with the steam capstan, one of the rollers having given out. This being remedied, the ship reached the ground in time to complete the required six runs while the tideserved. Since the previous partial trial, when she only realized a mean speed of 12.02 knots; she has been docked, had her bottom thoroughly cleansed and the safety valves weighed equal to those of the *Warrior*. Under these circumstances, as both the ships and their engines were made from one set of drawings and patterns, it might be reasonably expected that the speed of both vessels, would be, as nearly as possible, equal. The actual results, however, proved definitely that the *Black Prince*, under present circumstances, is fully one knot an hour inferior to the *Warrior* in point of speed. The results of the first hour's trial (63 minutes) of the *Black Prince* was in speed 15.126 knots with steam at 21½ lbs., vacuum at 24 inches and screw revolutions at 54 per minute. Of the third hour (64 minutes, odd seconds) the speed was 14.694, steam 21½ lbs., vacuum 25 inches, revolutions 51½. Of the sixth hour (64 minutes, 30 seconds) the speed was 13.091, the steam was 21½ lbs., the vacuum 25 inches and the revolutions per minute 52; the mean speed of the six runs being set down at 13.317 knots. A comparison of the *Warrior's* trip would exhibit the following figures:—First hour (63 minutes odd) the speed was 16.514 knots, steam 21½ lbs., vacuum 24 inches, revolutions 55. Third hour (63 minutes) speed the same, vacuum and steam the same, and revolutions 54½. The sixth hour showed the speed to have fallen off to 12.543 knots per hour, while the gages exhibited the same pressures; the revolutions also falling to 53.50. Mean speed of the *Warrior* during six runs, 14.354 knots. By comparison it will be seen that there is a difference of speed against the *Black Prince* of 1.037 knots.

In seeking for the cause of this difference several reasons may be found, which, together or separate, will account for the apparent loss, although the *Warrior* will still be undeniably the fastest ship of the two. There is a difference in the pitch of the two screws of seven inches; with the *Black Prince* altered to this extent, it is calculated that she would increase her revolutions from her maximum of 52 to the maximum of the *Warrior's*, 54 or 55, which would give her an increase of speed. The *Black Prince* also drew 7½ inches more water on her trial than the *Warrior*; adding so much consequently to her displacement and resistance. It will also come within the recollection of our readers that she grounded and heeled over before leaving the Clyde, which is supposed to have strained her somewhat. If the form of her bottom is altered, here is sufficient cause to account for the loss of a knot an hour in speed; a selection of all these causes, however, can only be made of the 7½ inches extra displacement and the difference in the pitch of the two screws. The draught deserves attention; no reason can be assigned certainly, for the displacement of the *Black Prince* exceeding that of the *Warrior*, the former's auxiliary engines exceed in weight those of the latter, but the rife tower alone would more than compensate for this; the bottom of the *Black Prince*, therefore, must be