

Foreign Correspondence.

GLASGOW, Aug. 1, 1850.

LOSS OF THE ORION—IRON VESSELS—LIFE PRESERVERS—RAILWAY LIFE INSURANCE—DEATH OF GENERAL TAYLOR—COLONIAL RAILROADS, &c.

The cause of the loss of the Orion, off Port-Patrick, is to be inquired into before the principal criminal court of this country. The responsibility is understood to rest with the second mate, who, anxious to avoid the tidal current, and to shorten his voyage was running too close in-shore. The Orion was doubtless steaming at the rate of 15 to 16 miles per hour, and singularly enough the rock on which she struck is not laid down in any chart.

The experiments at Woolwich with shot on iron vessels being against their use for warlike purposes, and a suspicion being entertained that no wooden vessel could have been torn so much open as the Orion, are all points against the use of iron for shipbuilding purposes.

Connected with this matter, it is astonishing that the use of cork fibre mattresses and pillows are not more common on steamers.—They cost little more than those in common use. They have the merit of being anti-infectious—will not transmit disease—and will not harbor vermin. All the loss of life in your inland waters might be prevented by their use. Here it is different; still even on our coasts a cork cushion would float half a dozen men; and a pillow would give the heaviest man a chance for life. Their employment on the Orion would have saved every life lost when that vessel went down. Their cost, as has been stated, is trifling, but their value in this case would have been great. One gentleman's life was insured for £20,000: he was drowned in noble efforts to save others. Other lives were insured. In this country it is stated that the insurance offices may prosecute the owners for damages. That is the lowest view of the value of life; by it the economy to some parties of providing these means of safety to travellers and tourists, is apparent.

Talking of insurance, many travellers now insure their lives against accidents in railway trains. The scale is, first class carriage £1000, premium 3d—for one journey any length. 2nd class, £500, premium 2d. 3rd class, £250 and premium 1d. The first class proceeds, therefore, on the inference that a profit will accrue to the insurers at a proportion of accidents to travellers of less than one in eighty thousand! The company makes some allowance, such as medical attendance, interim support, and a sum of money proportioned to the intensity of the injury in any case less than death.

Business here is dull, notwithstanding the excitement apparent in the cotton, linen and woollen trades. No doubt exists that the home trade is depressed.

The failure of the Commercial Exchange Company, which has absorbed all its capital, and will be deficient at least £175,000, is the last of our great losses. The shares of the company were at one period within a few years at a high premium. The deficiency will all be paid by the shareholders.

The death of your President, General Taylor, immediately after that of Sir Robert Peel, has caused much regret here.

You may safely reckon that Sir Robert Peel's death will cause a great change in political relations. The two divisions of the Conservative party will coalesce; and at the next general election the impression is that they will have a majority and impose a duty of at least 5s. per quarter on wheat; probably 3s. or 3s. 6d. per barrel on flour. Indeed, I hear that the present Administration have in view that measure. Colonial produce will be excepted. It may be added that the speech of your Ambassador, Abbot Lawrence, at the great Exeter meeting, last week, strengthens this party, as it presents the hope that your people will trade with us on equal terms.

You may be no worse of knowing, moreover, that great efforts are now made in this country to increase the growth of cotton in Africa and India; no doubt of their success is entertained. India will be intersected by railways, and the obstructions to the navigation of its rivers will be removed.

Notwithstanding the doubts expressed in colonial journals, you need not doubt that the guarantee for the Halifax and Quebec railway will be in operation next year, and will probably be followed by another, not to Montreal, but to strike the range of the passes further west. The object is to settle that section of country in such a manner as to bring its products readily to our markets.

Twenty men were killed in a coal pit at Airdrie, ten miles east of this, on Tuesday morning. The cause was carelessness in the use of lamps. The men went down before the fireman had explored the pit with a safety lamp. The party are all dead, and the question whether they were all or one, two or more culpable, will never be answered.

The death of the Duke of Cambridge makes no political change. He was merely a "good hearted" benevolent man, who knew that he had no higher genius than that of doing good in promoting public societies and institutions, and he labored well amongst them—giving liberally himself and inducing others to follow his example. X X.

For the Scientific American.

Water versus Steam Power.

In a late number of your journal there was a call for information as to the comparative expense between Water and Steam power.—This is a very vague and open question, and can only be answered in the same way—circumstances altering cases.

Steam power in cost is nearly uniform, and except as to location, a trifle in the cost of fuel, is much the same every where; but that of water has no fixed value, its cost depends on location and other local advantages.

We will present comparatively an extreme case; from which, however, others may be estimated:—A water power, under our intimate knowledge, within five miles of the tide waters of the Hudson River, embracing forty acres of land, an old grist-mill in running order, dwelling and barn, was purchased for \$2,350, for the object of cotton manufacture, and on which such was erected, and is now in operation, and from its favorable circumstances is enabled to compete with the market, when some others less favored cannot. This site has a natural rock dam, giving a perpendicular fall of twenty-two feet, on a large stream, and is estimated to render constantly 300 horse power, in the driest time that water runs. Now we will charge to this water power \$1,000, and \$1,350 to the land for the necessary accommodations, which would be equally wanted if steam power was there to be used.

COST PER ANNUM.

\$1000 for 300 horse power at 7 per cent,	\$70,00
\$6250 for waterwheel, \$250 for bulk-head and race for location (\$6,500)	455,00
Incidental repairs, 1 per cent,	65,00
To repair wheel and race every two years, 5 per cent.	325,00
Tallow, oil or grease,	5,00
Annual expense of water power,	\$920,00
Estimated for 300 horse, Steam Power:—	
\$25,000 for engine, boiler, &c, annual expense at 7 per cent.	\$1,750
Incidental repairs, 2 per cent.	500
To be renewed every 15 years, 7 p. c.	1,750
Two firemen, called engineers,	700
Four tons coal per day, \$5 per ton,	\$6,260
Two gals. oil per week (104 at \$1,25)	130
Total, (risks of explosion and insurance not taken into account)	\$11,090
Deduct cost water power,	920

In favor of water power for 1 year, \$10,170 By this estimate on this location, it will be seen that when water power clears \$10,000 per annum, steam power loses \$170, and that this water is \$10,170 per annum cheaper than steam in the same place.

Now we will look at an opposite extreme; we will take the city of New York, where we are aware mechanical enterprises are carried on that must be done there and no where else. What is the cheapest power for that place? Why (with due deference to Mr. Paine) we say steam, let it cost what it does. Suppose it had a water power equal to half the wants of the

city, and not being enough for all, there is reason to believe it would rise in value to the level of steam, and be no cheaper. Whereas if there was more than the city wanted it would fall below.

We are all aware that there are enterprises carried on throughout the country in locations where they must bring power to them; while there are others, and that too of great magnitude, that can be located on our abundant and cheap water power more remote.

It is possible that this crude exhibit will enable some of your subscribers to perceive that the question of "Water versus Steam Power," in point of economy, depends on so many circumstances, that we may consider them constantly at variance, and that each location is to be considered by itself. B. A.

Origin of the Words Blanket, Worsted, Kerseymere and Linsey Woolsey.

While Edward III., in 1337, repeated his invasion of Scotland, and "ravaged the country with great fury, burning Aberdeen and many similar towns," as the historian tells us; and while he was engaged in raising an army to invade France in 1338, exacting from the impoverished English people all their wealth to waste in war; and when he was wasting France with war, borrowing money from all foreign princes who would lend him, pawning the English crown which made him a king, that he might still further extend destruction over fertile France; when, in the battles which our historians and poets have so minutely recorded, and loftily sung out, swords clashed with swords, and battle-axes rung upon coats of mail of the warrior heroes of France, there was a servant of mankind making a noise in Bristol, which was of infinitely greater service to England than the entire conquest of Europe would have been. This was Thomas Blanket. The noise he made was not that of the clashing sword, but of the clashing shuttle. His purpose was not to destroy what his country already possessed, but to give his country what it did not yet possess—blankets, a covering of comfort to go to bed with, to sleep under, that it might be refreshed in sound sleep, and rise in health and strength to its daily work of making mankind happier by being happier itself. Thomas Blanket was soon imitated by his neighbors, who, like him, set up looms in their own houses, and made woollen cloth like that what he made. The cloth was named by his name; and to this day, through all time, in this country will the name be known, though nothing else is known of this weaver than that he was the first to introduce the blanket manufacture into England.

No cloth of any kind had been woven in England before the reign of Edward III. We read that in 1331 John Kemp, from Flanders, introduced the weaving of cloth into England; that the King invited fullers, dyers, and so forth, to come from Flanders and settle here. This policy on the part of Edward was discreet; and viewed in connection with some other of his actions, prove him to have had some perception of the real sources of national well-being. But he no sooner allowed the cloth manufacture to be implanted in England than he almost rooted it up again by restrictive enactments and oppressive taxes, to carry on his wars. The manufacture of the twisted double thread of woollen, called worsted, was introduced into England about this time, or soon after.

The village of Worsted, about fifteen miles from Norwich, was the first place where this thread was made, and it took the name of the village. There is no spinning nor woollen manufactures at Worsted now, but from the tombs in the graveyard, and the benefactions left to the parish, which are recorded in the church, we have proofs that the manufacturers of Worsted were numerous, opulent, and lived there in successive generations, during several centuries.

It may also be noticed here, that after inquiring into the history of the parish and manufacturers of Worsted, we visited Linsey, which gave the name to the fabric known as linsey woolsey, and the Kersey and the Mere close to in Suffolk, where the workshops were situated, in which the cloth called kerseymere was first made.

The cloth so called now differs from the original, and there is but little trade of any kind in Kersey now. But, as at Worsted, the graveyard and the church have many records of manufacturers long deceased. Their names though now Anglicised, are common in Suffolk, are all of Flemish origin.

[The above is from Somerville's History of the Free Trade Progress, a work just issued from the English press. We cannot but notice in every case a decided lack of correct knowledge about the history of the manufacturing arts in England. The author of the above certainly never read some of the old repositories, or he would have known that long before Edward III.'s day, the Flemings had introduced the art of weaving blankets into Britain. Why, Berwick-upon-Tweed was quite a manufacturing place in the reign of Alexander III. It was a jealousy of its manufacturing importance which led Edward III. to besiege, and by treachery (foreswearing himself) take it. The Flemings were the principal citizens of it, and they made it like Frankfort, in Germany, a Free City. The blankets made at the north always were superior to those of the south of Britain—Aberdeen maintaining a high character for the best.

The Expected Great Comet

In order to predict, says Mr. Hind, in a letter to the London Times, the time of re-appearance of a comet moving in an elliptic orbit, with allowance for the attractions of the planets, it is necessary that we should know the precise time of revolution corresponding to some past epoch (as, for instance, the previous perihelion passage), or the period the comet would require to perform its circuit round the sun, if all planetary disturbances were to cease for that moment. The comet in question was observed in 1264 and 1556, and the interval between the perihelion passages in those years amounted to 106,567 days or 291½ years; but this tells us nothing with respect to the length of period corresponding to the eclipse described at the instant of perihelion, either in 1264 or 1556, since it includes the united effects of planetary perturbations between those years. Therefore, before we can ascertain the epoch of the next return, we must calculate the amount of acceleration or retardation due to the disturbances between 1264 and 1556, which being applied to the above period, gives us the exact time of revolution of the comet at the moment of perihelion passage in the former year, and hence we ascertain the period in 1556. Having found this, we can calculate how much it would be increased or diminished by planetary attraction up to the present time, and thus determine the date of the next arrival at perihelion. With these elements, taking into account the attraction of Jupiter, Saturn, Uranus, and Neptune between 1264 and the present time, and of Venus and the Earth in 1556, it is found that the length of the comet's revolution at the time of perihelion passage in 1264 was 110,644 days, or 302,922 years, and in 1556, 112,561 days, or 307,169 years; that the effects of perturbation will diminish this period 2,166 days, and therefore the present revolution will occupy 110,395 days, or 302½ years, so that the comet will return again to its perihelion on the 2d of August, 1858, and will then be moving in an ellipse of 112,785 days' period. With Halley's elements, the true time of revolution of the comet in 1556, was 112,943 days, and the perturbations should diminish the ensuing period about 1,797 days—hence we find the next perihelion passage will occur on August the 12, 1860.

Hooped Ships

We learn from Newcastle, Delaware, that a new steamboat, named after the town, has just been built there, by Thomas Robinson, on the hooped plan, invented by his father. She is one hundred and twenty feet in length, is built for a company, and intended for California, whither she will be carried on board ship, in pieces like her engine, which is about being completed at the Newcastle Manufacturing Company. The Newcastle is, we understand, entirely secured, according to the plan of construction, by iron hoops, no timbers being used in her.