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IMPROVED GOLD WASHER.

# No. 30.

Massachusetts Railroads. The capital of the Massachusetts Railway Corporations is \$50,264,100. Capital paid in \$38,749,316. The aggregate cost of the railways is \$46,885,991. The aggregate debt of the various corporations is \$12,420,201; but they have on handa surplus of money amoua. ting to \$1,349,230.

RAILROAD NEWS.

The length of railways in operation in Massachusetts, including branches, is 1,043 miles,-nearly one-sixth the aggregate length (stated at 6,421 1-4 miles) of all the railways in the United States. The length of double track in Massachusetts is 220 miles. The mean cost per mile of all the finished roads in operation in Massachusetts is \$43,781.-The cost of the New York and Erie Railway, when completed to the Lake, according to the recent Report of the Directors, will be only \$34,000 per mile. A large portion of the Massachusetts roads terminate in the city of Boston, and their cost is greatly enhanced by the purchase of real property requisite for stations. Compared with the thoroughly built railways in England, most of which have two tracks, the average cost per mile of the Massachusetts is less than one-third.

In England, at the end of 1848, the extent This is a Gold Washer invented by Mr. Wil- | trough are agitated thoroughly by the pins on of railways finished and in operation, was 4.420 miles, constructed at a cost of £131.000.-000, or \$628,000,000, which is about \$142,-000 per mile. The Reading Railway in Pennsylvania is believed to be the only road in this country which cost near the average of roads in 1848 exceeded \$47,000,000; and the net returns were about 4 24-100 per cent on the outlay. The Massachusetts roads in 1848 divided a mean rate of 7 283-1000 per cent upon the money paid in. The expense of of working the English roads is less than fifty per cent of the gross earnings ; the Massachusetts roads, a fraction over 54 per cent.

The passenger cars in Massachusetts run at an average rate of 23 1.8 miles per hour; the freight cars 13 1-3 miles. They travel twice as rapidly in England.

## Philadelphia and Princeton Railroad,

The Newark Advertiser says that an improvement greatly needed upon the line of railroad to Philadelphia is a doubletrack commencing at Princeton and extending some 4 or 5 miles this side, as far as Kingston-or 10 miles would be better still. The trains which leave Philadelphia and New York at the same hour, both morning and evening, usually intend to pass each other at Princeton, and if one of them happens to be delayed for any cause along the road, the other is obliged to stop there till it comes, or feel its way along at a snail's space, for fear of a collision till they do meet, when one of them is obliged to retrace part of its route till a turn-out affords the opportunity of passing. A double track over this short distance would save the delay and chance of accidents; and we understand that the company is willing to construct it, but it is said that the people of the neighborhood are unwilling to sell them the land on

The Principal Office being at New York. Barlow & Payne, Agents, 89 Chancery Lane, London TERMS---\$3 a year---\$1 in advance, and the remainder in 6 months. Poetry. THE POOR MAN'S DOINGS. BY MRS. MARY E. HEWITT. Oh, what were the pride of the rich man's gold Or the worth of each untilled rood, Were it not for the rough, hard-handed poor Who toil for their daily food. Whatever of labor the rich man needs, From the poor man's hand must come-From the cradle rare of the new-born heir, To the coffin and sculptured tomb. And the city springs on its phœnix wings Wherever the rich man rides. That smokes on the rich man's board. That stands in the rich man's home. Whatever your wealth hath bought-The poor man's hand hath wrought. And honor them evermore: As your fathers did before. That wealth is industry's friend, Thatchange is earth'slaw, and soon the see-saw May rise at the poor man's end. THE TRUE ARISTOCRATS. Who are the Nobles of the earth-The true Aristocrats,-Who need not bow their heads to Lords, Nor doff to Kings their hats?

The mighty and the free, Whose hearts and hands subdue the earth,

Who are they, but the Men of Toil

liam H. Danforth, of Salem, Massachusetts, who has taken measures to secure a patent.

A, is a strong frame. B B, are the cylinders of two pumps which project downwards and communicate with a stream or river by the suction pipes T T. The pistons of the pumps are attached to angular vibrating heads R R, which are secured by pivots to the upper edge of the pump box and are operated by the reciprocating levers P P. These reciprocating levers are attached to cranks N N, on a shaft raised upon the arch head M M. The shaft of the cranks receives motion by the pinion H, meshing into the large cog wheel G. The cog wheel G, is placed upon the power or roller shaft Z, driven by a crank K, or by band and pulley from some other power. The coarse deposits are put into the screen C, which receives a shaking motion by the small rod X on the crank N. The finer particles then pass through on to an inclined board D, the lower end of which projects over and into a circular formed trough F. The water is pumped on the inclined table D, and carries the particles into the trough F. The deposits in the

### Remarkable Clock.

The Charleston Courier contains a notice of a new clock which is soon to be erected in that city : The striking portion of the clock is so arranged that the chimingof the quarters, and striking of the hours, are accomplished by a single movement. The musical portion of the clock is also ingeniously constructed. It plays no less than three tunes, changing at the completion of each, and, when the three are finished, the keys again resume their original position, and commence the tune first played. We understand that four bronze figures are to be cast, which, at certain periods, are to spring forth from sep-

the roller Z and all the lighter particles are there separated from the gold during the agitation and washing and carried over the mouth of the trough on to the inclined table J. This table has transverse slats nailed on it, so as to retain the minutest scales of gold, (of which the English lines. The traffic on the English there are plenty in California,) that may be washed over. When the gold is completely washed, the agitation is arrested and by pulling out a small pin at the side of the trough it is tipped over and the contents tilted into the box V, which has a strong canvass bottom to retain the washed gold and to allow the water to drip through. When this is done, another lot of deposits are placed into the screen C, and the washing operation as described repeated. This machine is very well adapted to be worked on the banks of a river or on a small stream, The whole operation of screening, pumping water and washing the gold is combined in the one machine driven from the main shaft K. A small machine as well as a large one can be built on this principle and either manual or horse power applied to drive it.

ved of many luxuries which their more fortunate, because less elevated neighbors, are capable of procuring.

### Chloroform--Kreosote---Choiera.

The London correspondent of the Home Journal, under date of January 19th, writes that chloroform is used largely in cholera, and with wonderful effect in allaying the spasms. About a drachm is poured on asponge and which held to the nostrils, the mouth closed in a pocket handkerchief, socn allays the suffering. It is repeated as often as need. ful. The writer has been present when it has been administered, in the stage ot collapse, to pulseless patients and has seen it bring back the pulse; and in other cases, he is sure it has assisted materially in putting a stop to the sinking. To check the vomiting give a drop of kreosote in water, and repeat it as often as may be required. These are two pleted for a railroad from Crawfordsville to of the chronothermal remedies for cholera.

The poor man swayeth the settler's axe, Till the forests far retire ;

O'er the brands of the log-house fire.

He bandeth the earth with iron roads, And the steam-fed courser guides ; And fearlessly he drives the steed of the sea

- He tills the plain till the ripened grain Is safe in the garner stored, And with rifle and snare he hunteth the fare
- He twineth the costly robes of pride, And reareth the stately dome; And cleaves from the clod the marble god
- The gauds of beauty, the work of art, Nay-the very gold that your coffers hold
- Then health to the rude and thrifty poor,
- They 'mid the turmoil, earn the wages of toil,
- And think the reward of labor is health,
- Who are they, but the Men of Toil,

And compass all the sea!

Who cleave the forest down, And plant amid the wilderness The hamlet and the town, Who fight the battles, bear the scars, And give the world its crown Of name, and fame, and history. And pomp of old renown !

These claim no gaud of heraldry, And scorn the knighting rod; Their coats of arms are noble deeds ; Their peerage is from God ! They take not from ancestral graves The glory of their name, But win, as erst their fathers won, The laurel wreath of Fame.

arate points of the steeple and return to their places, obedient to the working of the machinery.

### Curlosities of Bolling' Water.

The higher we ascend, the less the pressure of the atmosphere becomes, and consequently, being to a certain extent removed from its surface, water boils at a much lower temperature than below. Many remarkable facts are dependant on this, for the nutricious principles in many kinds of common animal and vegetable food cannot be extracted at a temperature lower than 212 degrees; therefore, these who live in very elevated regions, such as the plains of Mexico, &c., are depri-

### Southern Railroad Convention.

A Railroad Convention is to be held at Memphis, Tennessee, in the month of July next. The people of Tennessee and Arkansas think the great Continental Road should begin at Memphis as the Mississippi depot, while the tion on the Wabash river, 310 miles above its Illinoisans and Missourians claim a decided junction with the Ohio. This railroad must preference for St. Louis as a starting point. (pay well.

favorable terms. Cannot something be done to effect the object ?

### A New Railroad in Indiana.

A survey and estimate have just been com-Lafayette, a distance of 261 miles and the line is to be put under contract in the month of May next.

Crawfordsville is about 45 miles to the north-west of Indianapolis, the Capital of the State, and is the seat of Wabash College .-Lafayette is at the head of steamboat naviga-