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## Rail Road News.

### Cheap Railway Fares in England.

The London and Northwestern railway company are carrying out some "extensive experiments" in the way of a reduction of fares, with a view of testing the productiveness of the local traffic. Hitherto the price of day tickets, for certain distances, has been one-third less than two fares, a further reduction upon which, to the extent of one-sixth has been made. The Midland Company have also reduced their fares, and have assimilated them to, and have adopted, the scale on the Great Northern Railway. The great problem of the age with regard to the profit of railway investments, is to determine what rate of fare will secure the largest revenue. It has been demonstrated, that on the English railways four fifths of the gross revenue comes from passengers at one penny or two cents per mile, and that, invariably, the number of passengers has fallen off, and the receipts have decreased whenever the rates have been raised. The commission formed by the British Parliament to inquire upon this and other pertinent subjects, reported a mass of evidence in favor of low fares that no reasonable man could resist, and some of the English companies propose to give the low fare system a trial upon the most radical scale. We are rather fearful they may not persevere for the length of time necessary to give the system a fair trial. The proper mean is the thing to be arrived at.

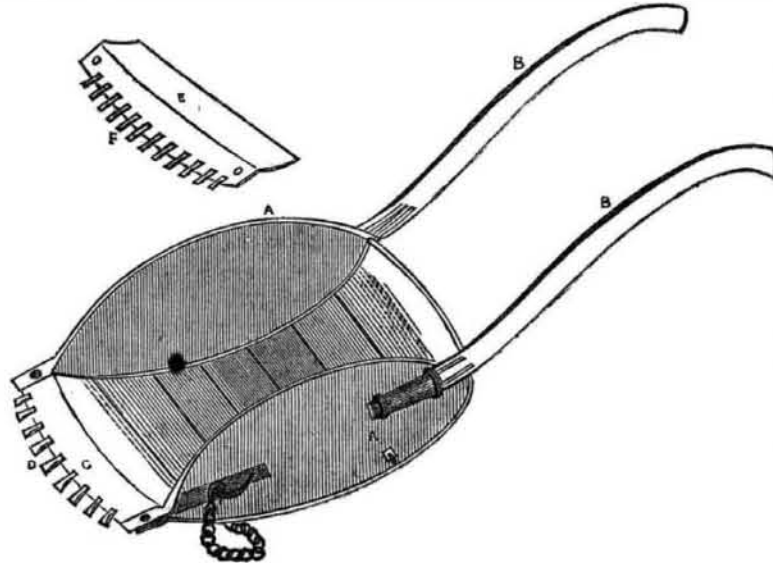
### New York and Erie Railroad.

The Buffalo Courier says—"We are informed by Mr. C. Story, who last winter ably represented, in part, the county of Dutchess, in the Assembly, and who is now doing some of the heaviest, if not the heaviest work on the Erie Railroad, that the entire balance of the line, from Corning to Dunkirk, will be finished and in complete running order, on the first day of May, 1851. Mr. Story's contract covers the most formidable work to be done. It is twelve miles in length. He is now working one thousand men, daily, and is about to put on five hundred more. Every section is under contract, and is being prosecuted with the utmost vigor. Another season will therefore witness the effect which this route will have upon the vast tide of travel flowing from the west.

It has been announced that Mr. Sellers, of Cincinnati, has been appointed Mechanical Engineer of the Panama railroad, to reside in this city. The company propose to complete the work to Gorgona by June, 1851, and the whole in two years. The road will be first laid to Chagres on pile, to be filled with the excavations on the line. The rail is to be made of wood found along the line, so hard that it is difficult to work it by common tools.

The passage of the Texas Bill, giving her ten millions, will enable her to pay off nearly her whole debt. We hope her citizens will then invest considerable in plank, or railroads.

## SWEET'S PATENT EXCAVATING SCRAPER.



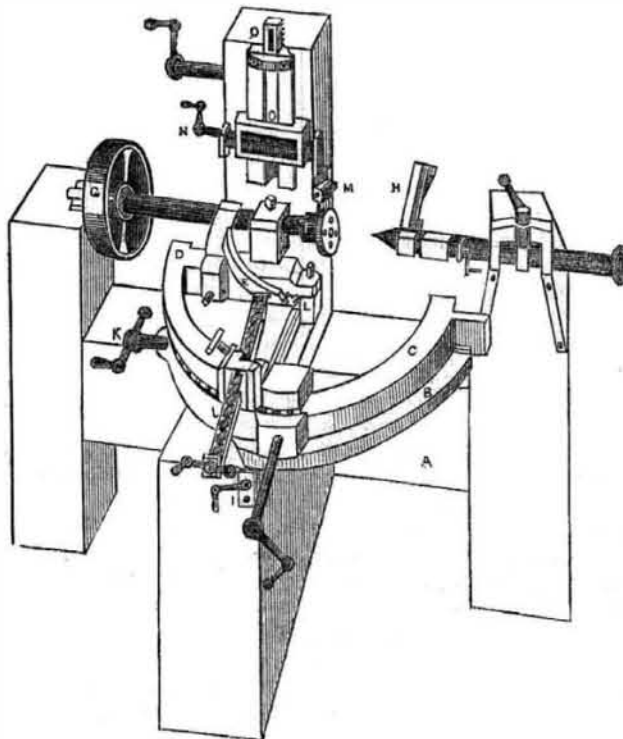
This scraper is the invention of Mr. Joseph Sweet, of Hughesville, Lycoming Co., Pa., who has a patent for the improvement. The distinguishing feature of this invention is the introduction of moveable teeth on a circular surface, the teeth being in condition and number adapted to the condition of the soil in which the excavator is used. The sides of it may be made of wood or metal as represented by A. A. B B are the stilts or arms, C is the moveable mouth piece with the teeth D. The teeth on the mouth piece of the excavator, are broad and flat in front, capable of plowing up in gravelly soil: the teeth, F, in the detached mouth piece E, are narrower at the extremities and are adapted to excavating in stiff and

clayey soils. This excavator can be used in all soils, and it is particularly adapted to obviate entirely the use of a plow in stiff soils. It is useful in making roads, for levelling, digging ditches, canals, cellars, railroads, and other kinds of excavations. It is made strong and durable, and the price of one we believe is \$8. We have seen some strong testimonials respecting its good qualities, given by those who have used it.

This scraper has just been awarded a diploma at the State Fair. Remember that it is an Excavating Scraper, with moveable teeth.

More information may be obtained by letter addressed to Mr. Sweet.

## EVERETT'S WOODEN BOWL TURNING MACHINE.



This is an improved machine for turning wooden bowls. It is constructed to alter the shape or thickness, and it will turn seventy feet of bowls per hour. It is easily kept in order, and its simplicity is one of its peculiar traits. The bowls made by it are wonderfully smooth and perfect in form.

A is part of the frame; B is a moveable bottom, and is moved by the screw handle, I. C is a semi-circular frame placed on the top of the moveable bottom; it is moved by the screw

handle, K, at right angles with the direction of the movable bottom; D is a reciprocating frame turning on a pivot, which is connected with the semi-circular frame, C; it is moved by the large crank handle in front, the shaft of which has a pinion on it, which takes into a cog rack on the underside. The cutter arms, E, are attached to this frame; in the said arms are set the spurs and cutters, L, to cut the bowl from the block of wood, which is screwed to the chuck, F. The apparatus for

cutting the outside of the block is also attached to this frame. H is the stock, in which a plane iron is placed for shaping the bottom of the bowl. G is a driving pulley of the spindle. The flat part of the block, which forms the top of the bowl, is first turned off by the cutter, M, which is moved up and down by a rack and pinion, Q, operated by the crank handle, N; the frame, D, is then adjusted to the block by the screws, K and J, (turned letter,) and the outside of the block is shaped by the cutting apparatus, H, the cutter of which is brought against the block by a screw; the cutter arm, E, with its cutter, is then placed in the frame, D, and by turning the large handle in front, the cutters are pushed into the centre, forming the bowl, which is then taken off, and another, a size less, is placed upon the reciprocating frame, and another bowl taken off, and then another, till the block is used up.

The inventor of this machine is Mr. Addison Everett, of Middlefield, Mass., who secured a patent for the same on the 30th of last July. He has spent several years in bringing it to its present state of perfection, and encountered many difficulties, like all original inventors. After his machine was in operation as a fixed fact, though not abandoned to the public, an inferior machine was got up and patented by one of his neighbors, which proved to be some obstacle to Mr. Everett's success, who wisely purchased the whole right, and is now the proprietor of his own patent as well as assignee of the other. The invention is well secured against all infringement. This machine will supersede the tedious process of hand turning, and it saves about one-third of the timber; the bowls are smooth and not liable to split; hard or soft wood can be used. The bowls can be made half an inch thick, or any thickness required, and as the demand for wooden bowls in every part of the world is almost unlimited, the use of Mr. Everett's machines will form a profitable item in the statistics of our country.

## Useful Receipts.

### Gravity.

A heavy body falls through 15,0954 feet in one cond in the latitude of London, in a vacuum at the level of the sea; the double of this quantity, or 30.1908 feet, is the measure of gravity at that place. At Paris, under the like circumstances, the fall of a heavy body is 4.90434 metres, or 16.0906 imp. feet; and the measure of gravity 9.80867 metres, or 32.1812 imp. feet.

The spaces described in different times by a falling body, are to each other as the squares of the times from the beginning of the descent; or, which produces the same result, they are as the squares of the velocities acquired at the end of those times.

Gravity and specific weight are not always interchangeable terms—gravity being a power of which weight is the effect.

### To find the Tonnage of Ships.

Rule 1. Multiply the length of the keel, taken within the vessel, by the length of the midship beam, taken also within, from plank to plank, and that product by half the breadth, taken as the depth; then divide the last product by 94, and the quotient will give the tonnage. If the length of a ship's keel be 80 feet, and the midship beam 30: required the tonnage.—Ans. 385.9787 tons.

We have a number of communications awaiting attention. Owing to the extent of our index, the best we have ever got up, some communications are laid over until another period.