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## Rail Road News.

### Troy and Boston Railway.

The Troy papers of Saturday announce the fact that the entire line of this road has been put under contract. The directors, in their circular, state that they have contracted with responsible men to build the road to Pownall, Vermont, 36½ miles—its entire distance—for \$720,000; which includes every expense connected with building the road, even to iron and land damages; to be paid as follows. cash, \$400,000; stock, \$200,000, bonds \$120,000.—If this plan is strictly carried out, it will prove, we should judge, a wise and judicious arrangement, as the company know just what their road is going to cost. For furniture of the road, and interests, they estimate \$130,000, making a total of \$850,000; of which \$440,000 is subscribed, \$225,000 more is taken by contractors—leaving a debt of \$185,000. The contractors are to finish the road "on or before the 1st of July, 1851," if they can.

### Large Locomotives.

The largest locomotive in the world, says the Madison Courier of the 11th inst., arrived at the wharf last night, for the Madison and Indianapolis Railroad. This locomotive when on the track ready to run, weighs about forty-three tons—is over 800 horse power. It was built in the shop of the Baldwins, in Philadelphia, under the superintendence of Mr. A. Cathcart, with five cylinders, and is intended for this end of the road. We are told this engine is called the John Brough, on account of its great weight and for the great amount of business it is capable of doing.

### Whom We Trust Our Lives To.

The report of the committee of the National Convention, recently in session at Cincinnati, mentions that the medical schools in our country are too many, the students too numerous, the professors too few and incapable, the quantity of instruction too limited, the quality too superficial, and the preparatory training insufficient. Yet are our lives entrusted to the persons who are pronounced capable after this kind of instruction.

### Missouri Pacific Railway.

James P. Kirkwood, Esq., late Superintendent of the New York and Erie Railroad, has been appointed Chief Engineer of this Railroad. He is a skilful, able and experienced engineer. Chas. Minot, Esq., formerly superintendent of the Boston and Maine Railroad, has been chosen to fill the place of Mr. Kirkwood on the N. Y. and Erie R. R.

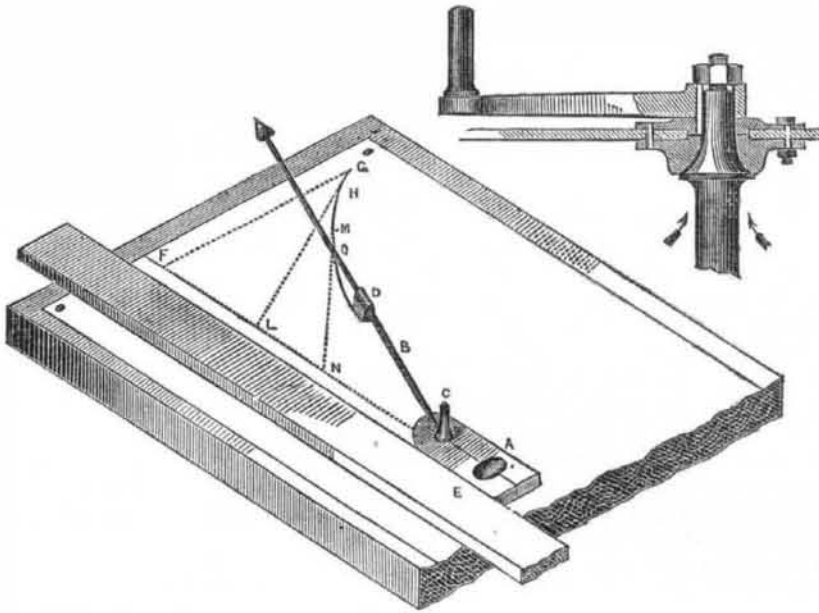
The Auburn and Rochester Railroad formerly consisting of two corporations but connected together, have consolidated themselves into one corporate body.

The direct railroad communication between New York and Boston, by way of New Haven and Springfield, is drawing so largely upon the Stonington route that the managers of that line are to reduce the fare from \$4 to \$2.50.

## SCHIELE'S ANTI-FRICTION CURVE.

Figure 1.

Figure 2.



On our list of Patents this week there is one granted to Mr. Christian Schiele of Frankfort, Germany, (a free city,) for the very important discovery of the true form of rubbing surfaces for regulating equal abrasion. This curve is applicable to all bearings of machinery, such as valves, journals, &c. The practical defect in rotating valves, is, that they gradually wear loose, owing to their working action and great friction, produced by forcible tightening up. This is the reason why so many rotary engines have worked well for some time, and then failed beyond a remedy. Irregular friction, with all its injurious effects, is well exemplified in the conical plugged stop-cock, for the amount of wear of the larger end differs from that at the smaller end, because every point of the former has a larger frictional traverse than any point in the latter. To lessen this evil, the plug is made nearly cylindrical, but the evil attending this form is that a little pressure

FIG. 3.



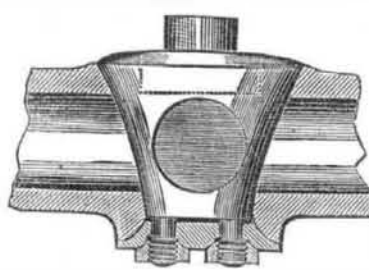
binds the plug in its socket, and very little wear causes the plug to sink considerably, hence the plugs and shells have to be made long and heavy. As the friction of a plug and its socket divides itself in such a manner that the product of the pressure multiplied by the length of way, is the same for any point in the rubbing surfaces, so the length of way being different in different parts, the pressure must differ also—being greatest at the smallest end; and as the largest end must be tight as well as any other part, the wear of the smallest part is obvious. The inventor Mr. Schiele, who is now residing in Manchester, England,

from which place his papers were sent here, had his attention drawn to these things some years ago, which resulted in this invention, for which he obtained a patent in England in 1848, and now one for the United States, and to elucidate its principle and its application eight different figures are here introduced.

Figure 1 is the instrument used to describe the curve, and fig. 2 is a vertical section of a locomotive engine regulator constructed on the principle of the curve; fig. 3 is the generated curve itself, and fig. 4 is the vertical section of the shell of a stop cock, the plug of which is formed on the principle of the new curve—free from the imperfections of the old and possessing the property of keeping tight as it wears.

In figure 1 A is a small modern slide to which the rod B is adjusted by a pin C. D is a drawing pen affixed to a slide which can be moved upon the rod B to the proper distance for the curve required, and is kept in that end in a vertical position, by a spring which fits a groove. This direction of the sharp edge of the pen, D, is in a straight line to the pin, C. E is a ruler, along the edge of which the slide, A, is to be drawn. If the slide, A, and the rod, B, are so placed that the pin, C, shall be

FIG. 4.



at F, the pen at D, and the point at G; the centre line of the rod, B, will then be over the dotted line, G F, at right angles with the dotted lines, L N, (representing the axis of the curve to be drawn,) and if the slide, A, be then guided along the edge of the ruler, E, the pin, C will move along the dotted line, N, dragging, as it were, the pen, D, after it, which will describe the curved line, G H M O. F G, L H, M N, represent some of the tangents—the main features and principle of this curve being one, as shown in fig. 3, and the revolution of the curve drawn by the instrument, fig. 1, round its axis, L N, produces fig. 3, which has a surface with an equality of all its tangents drawn from the curved surface to its axis,—hence the use of the instrument, fig. 1. That the curve thus generated will produce the re-

sults stated, an equality of abrasion in both shell and plug, appears to be as self-evident as the axiom, "all the radii of a circle are equal."—[Continued on 4th page.]

## Useful Receipts.

### Straw for Hats.

In Italy the straw used for hats is made of rye, which is sown on poor land, very thick, and it therefore does not grow to above one half of its usual size. The rye straw used for braiding is cut near the ground when the grain is in the milk. It is tied up in small bundles, the heads cut off, and then it is dipped in boiling water, and put out to dry in the sun, taking care to take it in at night, and allowing no dew to get on it. When properly dried it is cut into proper lengths, drawn between the fingers with a blunt knife edge along the inside, and is used either for fine or coarse bonnets, as is desired. The tool used for splitting straw is a piece of wood five inches long, with a series of sharp spurs near one end, with a wooden or metal spring over the spurs—or, rather, one side of them—which is pressed down upon the straw to keep it spread flat while it is drawn over the spurs and split.

Straw is bleached by wetting it, and putting it into a tight box or barrel with some sulphur placed on hot coals in an iron pot, placed on the bottom of it, so as to allow the straw to receive the free action of the sulphurous vapor. Two ounces of bar sulphur will bleach a pound of straw. The straw must be kept from the sides of the box, by laying it on strips of wood running across the box or cask. It should not be taken out of the sulphur box in less time than four hours. Old straw, leghorn, or palm leaf hats or bonnets, may be whitened in this way, if they are thoroughly washed with a brush or sponge in soap-suds, before smoking. Straw must always be wet when it is braided, to prevent its breaking. An ingenious person can learn to braid or plait straw by taking a piece of old braid, and wet it, and pick it to pieces, and then braid it again.—When the straw hats are dry, after being cleaned, they are sized with size made of clean parchment parings boiled in water, and then hung out to dry; and are afterwards pressed with clean damp clothes and hot irons, on blocks which fit them to the desired shape.

### Woolens and Furs.

Many persons suppose that the best way to prevent moths from getting into woolens or furs, is occasionally through the summer to hang these articles in the sun and rain. This is a great mistake, as it is by such exposure that the moths are most likely to get into them. On the contrary, in the spring, when the season is over for furs and woolens, they should be well shaken and brushed, and then wrapped up tightly in linen, laying among them lumps of camphor; handfuls of fresh hops; cedar shavings, and above all fat pine wood shavings, all of which are preventives to moths; the camphor is by far the best for furs. All woolens, &c., should be kept during the summer unopened, in dark dry places such as drawers or large chests. Cedar presses are preferable to all others, for keeping cloths or other woolen articles. Hair trunks rarely fail to introduce moths. The month of June is the best time to put away flannels.

As you would save the strength and wind of a horse, drive slow up hill; and as you value your own and the life of the horse, drive slow down hill. But on level ground, if you must drive fast, draw a taut rein, and "let him slide."