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Rail-Road News.

Alabama and Tennessee River Railroad.

The Selma (Ala.) Reporter announces that contracts have been made on favorable terms for the graduation, masonry and bridging of this railroad to Montevallo.

But one year has elapsed since the books were first opened for subscription—then all was doubt and hesitation—now with the stock and the appropriations of the Legislature, the means of the Company exceed \$1,200,000. All the surveys, making an aggregate of 1,000 miles, and all the estimates, &c., necessary to determine the location of the road, have been made, and about 56 miles of the road are under contract. We are assured, says the Reporter, that the next 4th of July we will have the pleasure of celebrating the advent of the Iron Horse in Mulberry Valley.

Arrangements are making to place under contract from fifty to sixty miles of the road in Talladega, Benton, and Cherokee counties early this winter.

New Locomotives.

Messrs. Norris & Brother, of Philadelphia, have just completed for the Copiapo railroad, in Chili, three of their large class engines, which will be shipped to this city and thence to their destination as soon as possible. Each of the engines has four five feet drivers, and the cylinders are 13 inches in diameter, with 26 inch stroke. They are to run on the new road recently constructed under the superintendence of Mr. Allen Campbell, of Albany, from Coldar to Copiapo, a distance of fifty-five miles, to the copper mines of that country. The same enterprising gentlemen have now almost finished at their works, corner of Schuylkill Sixth and Fairview streets, two large engines for the New York and Erie Railroad. These mammoth "iron horses" are each built upon four wheels, 7 feet in diameter, with cylinders 14 inches in diameter, and 32 inch stroke.

Pacific Railroad.

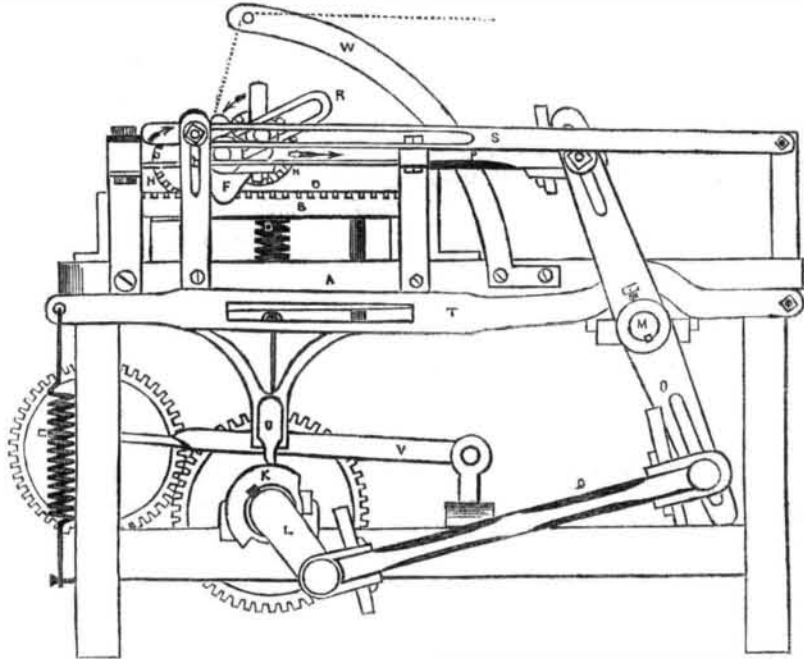
The Little Rock, Ark., Gazette announces the arrival at that place, from St. Louis, of Captain Joshua Barney's Surveying party, who have been engaged for a year past, under the orders of the Government, in making an experimental survey of a railroad route from St. Louis via Fulton, on Kid river, to El Paso, on the Rio Grande, and thence to the Pacific Ocean. The line marked by them deviates very slightly from a direct course.

Indiana Railroads.

Indiana is fast becoming to the West what Massachusetts has been to the East—the railroad State. The enterprise of her citizens in the construction of railroads is everywhere apparent. There are in the State nineteen railroads, either completed or in progress, the aggregate length of which is 1,205 miles. There are already completed 212 miles.

The citizens of Richmond Va., are about subscribing \$100,000 to the Va. & Tenn. R. R.

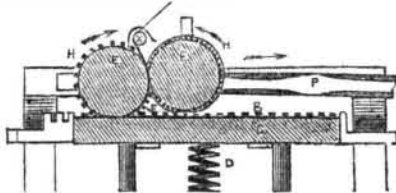
MACHINERY FOR CALENDERING, FOLDING, AND MEASURING CLOTH.—Figure 1.



The improvements comprised in this machine are the invention of Mr. Henry Boot, of New Bedford, Mass. The principle of this invention is the folding and measuring of cloth, by passing the cloth between two rollers, which may be used as callendering rollers; and giving these rollers a reciprocating motion from end to end of a table, a yard long, to fold the cloth on, thus folding and rolling it at one time, and for which improvements the inventor has taken measures to secure a patent.

Figure 1 is a side elevation; figure 2 is a section of the rollers, the folding table, and the roller rack, and figure 3 is a plan view (looking down on the machine.) The same letters of reference indicate like parts. A strong table is made with legs, and a strong top, frame or sides, A A. B B are the racks, (one on each side, fastened on a bearer of the frame; C is the cloth-folding table; it is set between the two racks, B B, as represented in figure 3—it is exactly a yard long. This table is upheld by five iron bolts, two at each end and one in the middle; this middle one has a coil-

Fig. 2.



ed spring, D, around it; this spring abuts against the table above and a fixed block below, and supports the table altogether. The metal bolts work down through guide openings in the block below; this allows the table to be brought down below the rollers, so as to take off the folded cloth; this is done by press-

American Artists in Rome.

A correspondent of the London Athenæum says the Americans seem to be the only people in Rome who are suffered to exhibit their political, artistic and religious heresies with impunity. Powers' emblematic statue of the Republic of the United States is progressing, and Mr. Crawford's design for a monument to Washington is described by him as follows:—The design, for which \$100,000 is to be paid, is original and striking. From the centre of a huge block of granite, cut into the form of a star with six rays, rises a pedestal, on which stands an equestrian statue of the Legislator,

ing the foot on the outer end of the lever, and which is attached by a rod extending up a hooking, into the bolt of the coiled spring, D. By this operation the table is at once drawn down, but when released of the foot it springs up of itself, by the recoil of the spring. The two large cog wheels seen below, in fig. 1, are the driving wheels. L is a crank on the axis of the second wheel; it is connected by common links to the connecting rod, Q, and this rod is linked to a crank, O, which has a shaft, M, extending across the frame. To this shaft is secured a crank, extending up, which appears like a continuation of O, resembling a beam, but it is separate, and on the other side there is a similar one exactly, which is indicated by N, fig. 3—in which figure both cranks are shown in their relative positions, and as connected to the reciprocating arms, P P; these arms play an important part: they support the frame, F, which sustains the folding rollers, E E. Two strong bolts, secured in the ends of the arms, P P, support two plates, in which the rollers, E E, have their bearings. As the arms, P P, therefore, are moved backwards and forwards, by the upper cranks on the shaft, M, it will be plainly seen that the folding rollers, E E, will have a reciprocating motion. On the ends of the rollers, E E, are cog-wheels, H H; these wheels are to run on the rack-road, B B, which is secured at the outside of the table, C; the object of this is, that when the rollers draw in the cloth, and move to one end, one roller will be tilted up from the rack, and the other let down on it, to move in the other direction, so as to draw the cloth always down, inwardly, between the rollers. This is represented in figure 2. One roller, E, therefore, is moving on the rack, B

(Continued on Fourth Page.)

the Eternal city. Their architects are now at work—and in a short time the edifice will rear its head in the neighborhood of the ancient tomb of Augustus, and in the very Via de Pontifici.

To Prepare a Solution of Gold.

MM. Beckensteinir and Josselin's process:—Take 30 parts fine gold, 60 parts nitric acid of commerce, 120 parts hydrochloric acid of commerce. Place the gold in a porcelain capsule, of capacity quadruple that of the gold and the acids, and pour on it the acids, heating the mixture slightly until complete solution is effected. The excess of acid is then evaporated by a gentle heat, the chloride of gold thus obtained is dissolved in 400 parts of distilled water, and the solution passed through filtering paper; it is then mixed with an equal weight of the following solution of gum-arabic, composed of 504 parts of gum-arabic, and 1,000 parts of distilled water. The mixture is placed in a large evaporating vessel, the weight of which has previously been taken account of, and exposed to spontaneous evaporation, until reduced to 800 parts, stirring from time to time; it is then ready for use, and is put into well stoppered bottles.

Reduction of the Gold in its Metallic form from the above Compound.

This is accomplished by submitting paper, or any other substance to which the preparation of gold has been applied, to the vapor of phosphuretted hydrogen. This reduction is effected in from six to ten hours' time. If 1 part of phosphorus be placed in a porcelain capsule with 15 parts of an aqueous solution of caustic potash, two or three hours is sufficient to reduce the gold. If the temperature of this mixture be raised by bringing a lighted match in contact with it, so as to produce a disengagement of inflammable phosphuretted hydrogen, one minute will suffice to effect the reduction of the metal. The phosphuretted hydrogen gas should be collected in a wooden or paper recipient, of at least twenty times the capacity in volume of the object to which the solution of gold has to be applied.

To Prevent Fermentation in Cider, Wine, or Beer.

Add a small quantity of sulphite of lime; or bruise mustard seed, fourteen ounces to one ounce of cloves, and add to the liquid when first put into the cask, or a small portion of each may be added. The article is sulphite and not sulphate of lime. It is quite innocuous in any quantity.

To Prevent Incrustation in Boilers.

M. Guinon recommends the use of sugar and treacle for this purpose; he has found the addition of 12 lbs. of brown sugar, to keep a boiler 27 feet long by 3 feet in diameter clean for six months. M. Guinon does not give an analysis of the water supplied to his boilers, but states that previously to the use of sugar, he was obliged to clean out the boilers every three weeks, although he was in the habit of putting in a large quantity of potatoes after each cleaning.

To Toughen New Earthen Ware.

It is a bad plan to put new earthen ware into boiling hot water; it should first be plunged into cold water, and placed over a fire where it will heat moderately to the boiling point, and then be permitted to cool again. This process greatly promotes the toughness and durability of common earthen-ware, which is generally objectionable for domestic uses on account of its fragility.

At Suffield, Mass., there are 30 cigar factories, at which 150 men are employed, who make up 300,000 cigars per week. The "regalias" made there are sold in New York for the genuine imported.