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RAIL-ROAD NEWS.

Breaking of Railroad Car Axles.

A writer in the Journal of Commerce attributes the breaking of the axles of railroad cars to torsion, or twisting, occasioned in turning curves. The only effectual remedy for the evil is some method of securing an independent motion to opposite wheels, at the same time taking the strain off the axle.—This fact may afford a hint to the inventive genious of some of our mechanics.—[Exchange.

[The said writer might have saved his ink if he had been acquainted with his subject. The remedy proposed was patented and tried long ago, and instead of proving a remedy for safety, it increased the danger of running off the track.

New Locomotives.

Two large and powerful locomotives, with six feet eight inches driving-wheels, have recently been constructed at the locomotive works in Schenectady, for the Utica and Schenectady road, which are calculated to make the trip between that city and Utica in two hours, stopping twice. From the trial made they are found to equal expectations. The distance is not 80 miles.

Great Railroad Speed.

One of the engineers (James Baird) on Saturday week ran his locomotive, "The Tempest," on the Harlem Railroad, 103 miles in two hours and ten minutes, including three stops to take in wood and water. This was pretty quick running. The engine was built at the establishment of Rodgers, Ketchum & Grosvenor, Paterson, N. J.

A Great Locomotive Feat.

The Baltimore and Ohio Railroad company are now working a locomotive up a grade of 520 feet to the mile. This grade occurs at the great tunnel, where a temporary track has been laid over the mountain, for the purpose of transporting material for the road beyond, in advance of opening that work. The locomotive used weighs 24 tons, and the ordinary load attached to it, in addition to its own weight, is 12 tons. This grade has thus far been worked with regularity and safety. The whole power obtained is in the ordinary adhesion of the driving-wheels.

Explosion of a Mountain.

By the late news from Europe, an account is given of a singular catastrophe which had engulphed a chapel on a mountain in Siberia. Towards midday (date not stated) a report, as of thunder, was heard, and the summit of the mountain became suddenly enveloped in smoke. On the smoke clearing away it appeared that the chapel had been engulphed. No further particulars given.

Our Silver Currency.

A Bill is now before the Senate for the increase of the value of our silver coin relatively to gold. It is supposed that it will pass the House of Representatives almost unanimously, if it can get there.

EAYRS' PATENT STONE DRESSING MACHINE.---Fig. 1.

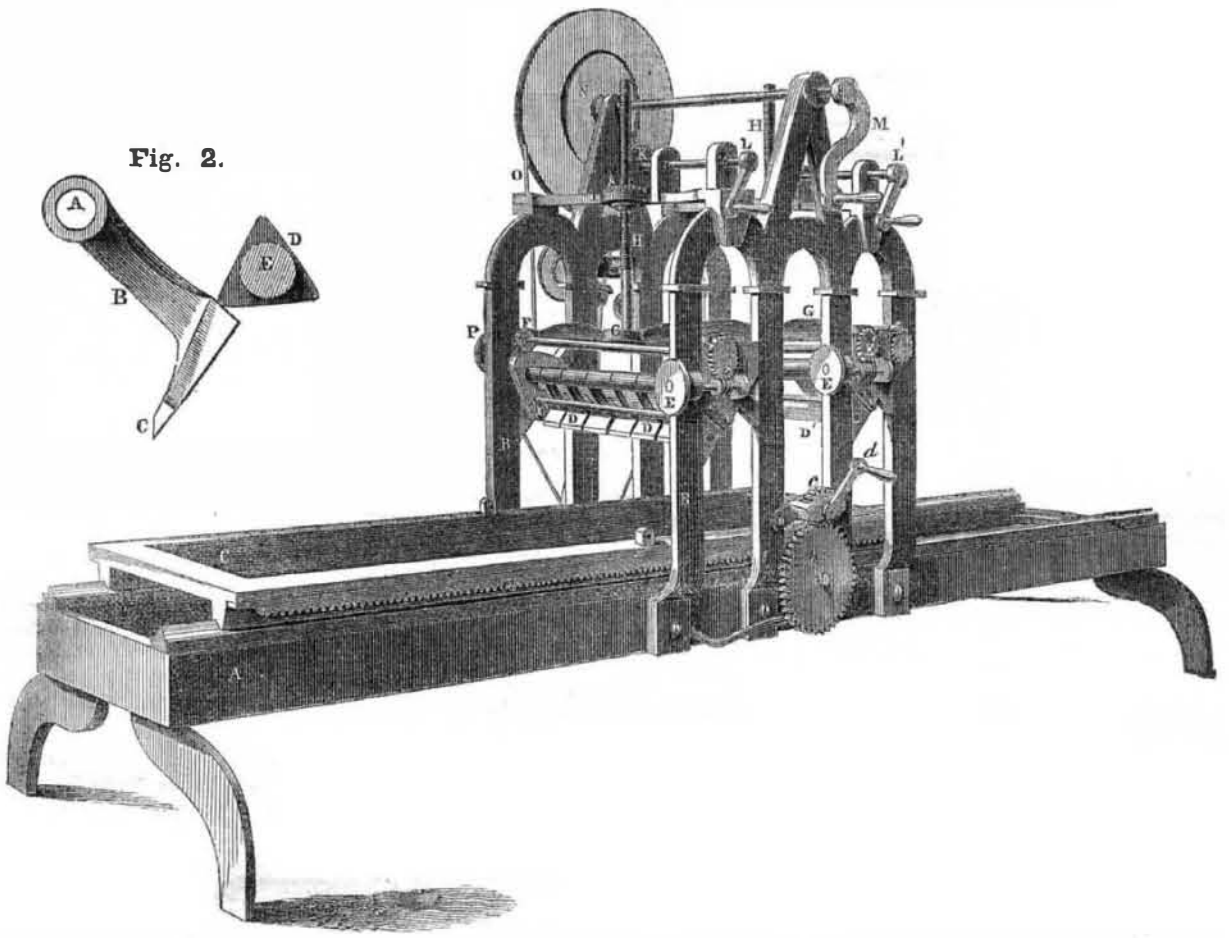

Fig. 2.

The accompanying engravings are views of the Stone Dressing Machine invented by William Eayrs, of Concord, N. H., and patented on the 4th Dec., 1849.

Figure 1 is a perspective view, and figure 2 is a side view of one of the chisels or cutters, and the cam which gives it a reciprocating chipping motion. A is the bed of the frame; it is made strong, and supported in the most suitable manner for the location where the machine is set up to work. B B are strong arched supports for the machinery. There are two sets of cutter chisels in the frame; they are operated exactly alike; the one set are placed behind the others, and are larger than the front set. The front set do the hard rough work, the hind set finish the stone with a beautiful surface. The bearings which support the cutters are sliding frames fitted snugly on each side between the two front and back arch supports, B. C is the bed on which the block of stone, granite, or marble is secured. It slides along and is fed forward to the cutters by rack and pinion gearing, *a b c d*, and this gives both the forward and reversing motion to the stone. This motion is for working by hand for the attendant, and shows the action; but, in a large machine, on the other side from the attendant, the forward and reverse motion is given by devices like those of iron planing machines; the stone stops moving when past the cutters, by a self-stopping, and then it has a reverse motion. D D are the chisels; they are hung on an axis. In figure 2, A is the axis, B the shank, C the cutter chisel; it is shaped almost like a boot; the edge of the chisel is like a stone cutter's broad hand chisel, and its action is the same as that by hand on the stone. Each set of cutters are hung on one axis across the frame, and each chisel is separate, and gets a separate slight blow on the back by the cam, D, on the shaft, E, fig. 2. The shape of the said cam is such that it gives the chisel three blows in one revolution. The cam is alike for both sets of cutters; it is a revolving roller, and is made with three projections for each cutter chisel, so that all the cutters are not struck at once, and this makes the machine work easy. The cutters are set so as to take only a small chip at each blow of the cam, but to take the blows very rapid; this saves the stone from splintering, and the cutters thus work better on hard stones or granite. The two side chisels are made to form sharpe fine edges, without flaws, on the sides of the stone. The axle or shaft on which the chisels are hung is fixed, but the cam shaft revolves. Both the chisels and cam frame can be elevated to any point for stones of any size. This is done by the screws, H H, for each cutter frame; these screws are sunk in sockets, G, secured on braces extending across and secured by bolts on the cutter frames. L L′ are crank handles, which turn spindles, on the inner ends of which are bevel pinions, K, (one behind, not seen); these pinions mesh into pinions, I (one not seen), which are nuts for the screws, H H, and which, when moved in one direction, turn the said screws so as to raise the cutters and cams for the purpose stated.

The chisel cutters can also be set at different angles, to cut more vertical or slanting, as may be required for stones of different hardness and of different natures. This is an important point of advantage, as some stones are very fractious, splintery, and hard to work; this arrangement, and the manner of striking the chisels with quick short blows, saves the face of the stone, economizes the power of the machine, and enables the cutters to work the hardest stones, granite, &c., with an ease and a beauty of finish that is scarcely possible to believe without seeing the machine in operation. The angle of the cutters is changed by the endless screws, which are turned by the heads, E E, and the screws move the wheels, E′ E′, on the spindles of which are other small pinions, F, (there is one on each end, inside the supports, but only one is seen) which mesh into sector cog plates, which are the bearing plates of the axles (A, fig. 2) of the chisel cutters. As the sector plates are turned, so is the angle of the chisels changed. The chisel and cam frames slide up and down between the standards, B B. The pulley, N P, and belt, O, are for giving motion to the cutters. By operating the cam roller shafts (E, fig. 2), which are placed behind the cutters, the cams strike downwards on the back of the chisels, as shown in fig. 2, and the action is like a great number of mallets acting alternately over the whole face of the stone, as easily on the stone as the hand chisel, and more accurately, and the amount of work which the machine is capable of performing, can only be limited by the power of the applied force. The cutting chisels (C, fig. 2) at the point are small, and are secured by nuts; this is not shown in the cut; but the cutters can thus easily be taken out and sharpened as cheaply and fast as hand chisels. The advantages of this machine are obvious; it dresses a true face on any kind of stone, without splintering or fracturing the surface. Its action is like a number of stone cutters, one set taking off the rough, and another behind finishing—all of them going over the stone at a tremendous pace, and acting on its surface in the best way to save it from splintering, and at the same time to make a most beautiful surface. It can dress the side of the stone, however narrow, as well as a broad stone, and this is a great advantage. One of these machines can be seen in operation at 138 Bank st., this city. This Stone Machine is owned by E. Chadsey & Co., of Troy, N. Y., or 62 William st., New York, assignees of Wm. Eayrs, and more information about rights, &c., may be obtained by letter addressed to them.

Vapor Baths Applied to Cattle.

A letter from Vienna states that for the last two years an epidemic disease has decimated the horned cattle, and brought ruin to the breeders; that the veterinery art was powerless to arrest the malady; but a Dr. Godlewske, a native of Gallacia, has recently claimed two premiums of 75,000f. each, offered by the Austrian and Russian Governments, he having, it is said, discovered an invaluable remedy in the application of vapor baths.