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RAIL-ROAD NEWS.

Railroad Car Axles.

A correspondent of the American Railway Times, in a long communication, discusses the question, "what is the cause of the breaking of railway car axles?" He presents totally different views from those which appeared in the Journal of Commerce, by a correspondent, a few weeks ago. The following are the causes which he believes tend to break the axles of cars:—

First—The wheels are attached to the axles at unequal distances apart. I have found the extreme distances to equal fully three-fourths of an inch. Second—The guard rails which are placed opposite points of the frogs, for preventing the wheels from taking the wrong direction as they pass through them, I have frequently seen so placed that the distance between the scores in the frogs and the guard rails is an inch or more greater than the distance between the wheels which pass them; of course the base of the wheels, or rather that portion of the wheels which rest upon the rails at the moment of passing, must be spread that amount, and the axle must bend sufficiently to correspond therewith or be broken. So forcibly are these guards operated upon by the wheels as they pass them, that large spikes are found to be insufficient to keep them in their place, and the repairers find it necessary to place pieces of planks or joists, in the form of struts or braces, between them and the frogs to prevent them from being pinched towards each other."

Rochester and Niagara Falls Railroad.

The railroad from Rochester to Lockport and Niagara Falls, is completed; it is believed that it will be in very active operation next month. This is a very important railroad; hitherto there has been no railroad direct to Niagara Falls from the East. To get there, visitors had to take the round-about road by Buffalo, and come away backwards about fifteen miles. It is true, they could go by the canal to Lockport, at the slow pace of some old line boat, and then take the cars, and "sail like a snail" on the miserable old railroad from that place to the Falls. All this will soon be changed; passengers will steam it right through without winding round and round by Buffalo and Schlossar's Mill—so famous in story. It passes through a beautiful and fertile country, the garden of our State, and visitors will be able to go to the Falls from New York city in about 16 hours.

Dilatory Telegraph.

Smith Pyne complains, in a letter in the Washington "Republic," of the shameful delay of two messages which were sent to him by telegraph. One was an account of his sister's death: it was received by him one hour and a half after it was sent through, and an hour too late for the cars to take him away that evening; it was a shame.

A short time ago Dr. Jackson administered a pound and a half of ether to a lion, at South Boston, Mass., and removed his claws during the twenty minutes the animal was insensible.

SANDER'S IMPROVED GRAIN DRILL.—Fig. 1.

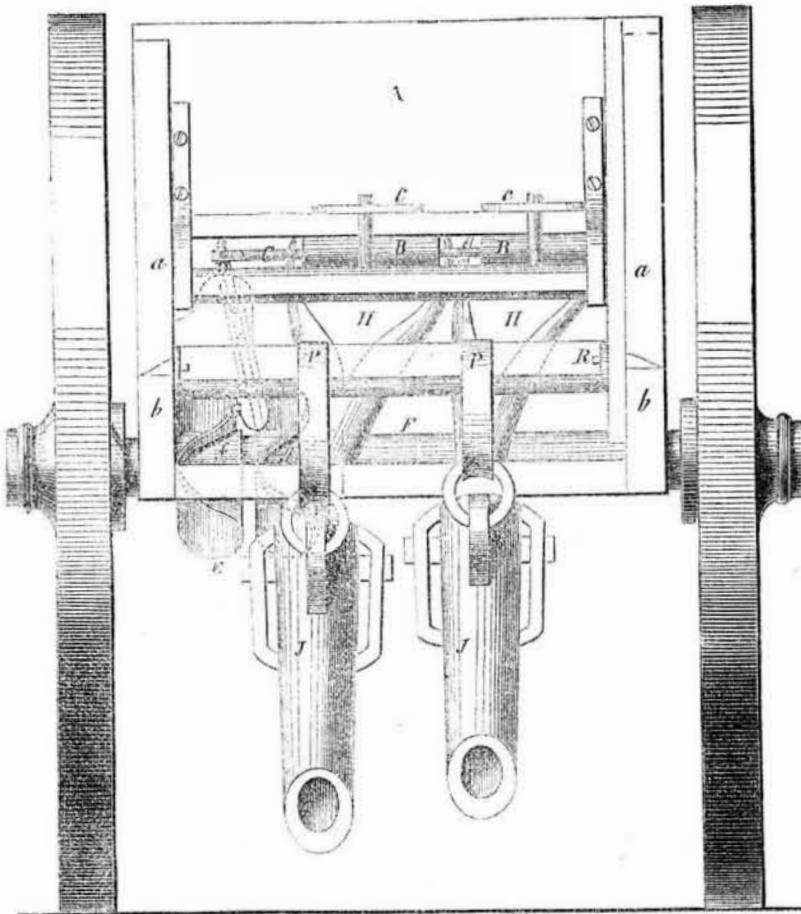


Figure 2.

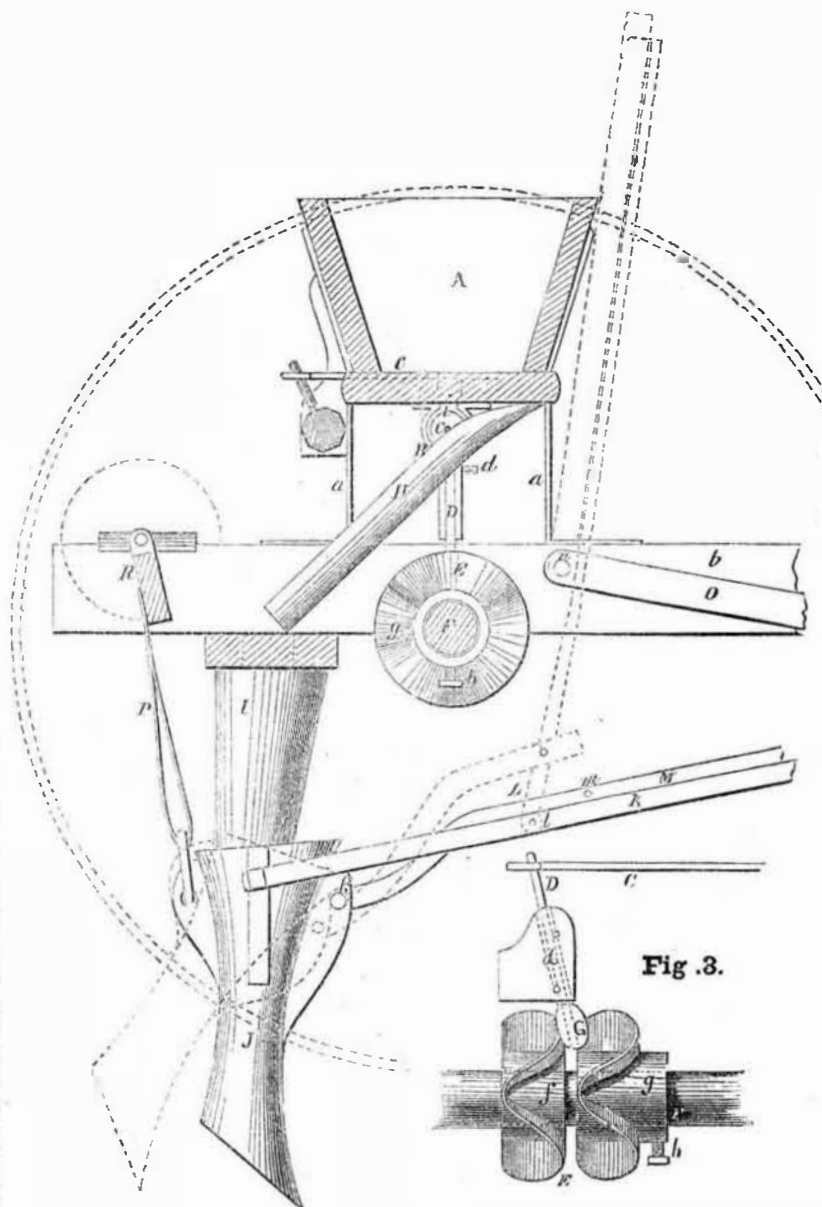


Fig. 3.

The accompanying engravings are views of an improved Grain Drill, patented by Benjamin D. Sanders, of Holiday's Cove, Brooke Co., Va. Figure 1 is a back view of the Drill in elevation; figure 2 is a longitudinal vertical section, taken at the middle of fig. 1. Fig. 3 is a section showing the cam which operates upon the lever that works the shove rod. The same letters of reference indicate like parts on all the figures.

A is the hopper or grain box; it is supported by standards, *a*, which rest upon the side rails, *b*, of the frame; B B are cylindrical tubes placed horizontally underneath the hopper. Each of these tubes has an opening in the upper part, through which the grain from the hopper passes. A valve, *c*, works over each opening so that the communication from the hopper to the tubes may be cut off when desired. C is a rod which passes horizontally through the tubes, B B. This rod has a number of circular slides, *i*, upon it, one fitting each tube. D is a lever which passes through an eye at one end of the rod, C. This lever has its fulcrum at *d*, which is formed by a pin passing through the lever, and two plates which are secured by one of the side rails, the lever being between the plates, as shown in fig. 2. The lower end of lever D has a friction roller, G, which revolves, as it is acted upon by a cam, E; this cam is placed upon the axle, F, of the wheels, and is formed of two separate parts, one part, *f*, being firmly secured to the axle, and the other part, *g*, moving loosely on the axle, and secured to it at any desired point by the set screw, *h*. On each of these parts, *f* and *g*, there is a zig-zag projection. The space between these projections, therefore, is of a zig-zag form, and the roller, G, sets in the space. As the cam, E, revolves with the axle, the inner surfaces of the projections, *f* and *g*, act against the roller, G, and give the lever, D, to which the roller is attached, a vibratory motion. As part of the said lever passes through an eye in one end of the rod, C, a reciprocating motion is consequently given to it, and also to the slides, *i*, on the said rod, and which are within the tubes, B B. The slides move backwards and forwards in the tubes, directly under the openings in the upper part of them; therefore, as the grain falls into the said tubes, it is pushed out first at one side, and then at the other, by the reciprocating motion of the slides. The grain falls from the tubes, B B, into inclined troughs, H H—one for each tube; these convey the grain to the leather tubes, I I, which fit in the hollow teeth, J J. The method of distributing the grain will now be rendered evident. The grain may be distributed faster or slower, by giving the rod, C, a greater or less stroke, by placing the part, *g*, of the cam, E, at a greater or less distance from the other part, *f*. If the space between the zig-zag projection is considerable, there will be a shorter stroke given than if the space were narrower. The fulcrum, or pin, *d*, of lever D may also be placed higher or lower, holes being made for that purpose, by which the stroke of the rod, C, may be lengthened or shortened.

We will now explain how the lower ends of the teeth are thrown up when they meet with obstacles in the earth. K are draw rods (one seen) secured to the front of the side rails, *l*, in the usual manner, the ends of the said draw rods being forked and fitting in eyes. The opposite ends of the said rods are also forked, and in these forks the hollow teeth, J J, fit; to the front of each hollow tooth there is a lever, L, attached by a pivot, *k*; this lever passes up through the fork in the end of the draw rod, and is attached by a pivot, *m*, a lever, M, which is secured to the draw rod by a pivot, *l*. O is a frame hung loosely by pivots, *n*, to the side rail, *b*; the ends of this frame rests upon the levers, M M.

It will now be seen that when any obstacle comes in contact with the ends of the hollow teeth, J J, the teeth will be thrown back, and the lever, L, will draw upon the lever M, and raise it and the frame, O. When the ends of the teeth have passed over the obstruction, the frame, O, by its weight, will depress the levers, M M, and the teeth will resume their original position. These hollow teeth are also raised and depressed by the straps, P, secured to the back of the teeth. These straps are attached to the shaft, R, and by turning it, the teeth are elevated and depressed as may be desired. This is a grain drill which can be made cheaper than many now in use; it is simple, strong, and so formed as not exert any grinding action upon the grain, a fault peculiar in the distributing in some other drills.

Mr. Sanders having secured a patent, more information about rights, &c., may be obtained by letter addressed to him at his residence in Holiday's Cove.

MISCELLANEOUS.

Something more about the English Engineers' Strike.

The London "Weekly Dispatch" states that upwards of £30,000 (\$143,500) were lost, per week, for fifteen weeks, making no less than \$2,282,500. The wages have been reduced greatly below the level of what they were before the strike, and there are now hundreds of workmen out of employment, their places having been supplied by more laborers during the strike. A new invention has also resulted from the strike, by which castings are made, by a firm in London, without the use of skilled moulders. The Association of employers now numbers 25,000, and it speaks well for their spirit that such sentiments as the following are embraced in a recent address issued by them to their workmen; it says:—

"To us it shall be no disqualification to employment that an artisan has tried the experiment offered by co-operative workshops. Of these laudable, if mistaken attempts to secure to associated labor the profits of individual capital and enterprise, we have only too little reason to be jealous of the competition. But whether they succeed or fail, we trust that the rival theories of competition and co-operation may, side by side, be practically applied, without interruption, to social harmony and the mutual good-will of neighborly citizenship. None shall hail the success of the solution of the industrial problem with more sincere congratulation than ourselves; and we trust that, should the experiment prove, as we fear it will, to be signally disastrous, we shall be found honestly willing to mitigate the lot of the sufferers, to the extent of our ability, and the full limit of our peculiar opportunities."

Boiler Iron.

A correspondent in this city writing to us about boiler iron says, "he agrees with us that boilers should be made of the best materials only, but how is this to be ascertained, who is to decide. One boiler maker prefers one manufacturer's iron, one prefers another's, for reasons which are connected with price and the management of their shops. Recently the manufacturers of iron of East Pennsylvania petitioned Congress that no reduction be made on foreign boiler or railroad iron, because anthracite coal could only be profitably used in the fabrication of nails, in other words, 'that cold and hot short iron was the consequence of the combination of their ores and fuel?' Our correspondent therefore suggests that in every case of explosion there should be an enquiry made into the quality of the boiler iron, who was its maker, where it came from, of what ores it was made and by what process. Facts thus obtained, he thinks, if carefully collected, would enable us to determine how to prevent Coroner's inquests, and save a vast deal of life. It is perfectly absurd, he thinks, to call twelve men together to say a man was scalded, and that the explosion was caused by a flaw which could not have been detected when the boiler was making. They should ask, who made the iron, who sold it, what was its price, &c. With these views we perfectly agree. The best makers of iron sometimes manufacture poor qualities

of it. They should be taught by exposure not to sell a poor quality.

Art.

ENGRAVING OF HENRY CLAY.—Here we have before us a real likeness of Henry Clay, just issued by Bachia & Co., engraved by A. H. Ritchie, the eminent engraver in our city. The great orator is represented as delivering one of those impassioned speeches which so often made the hearts of thousands throb, and the Senate walls to vibrate. It is altogether the finest likeness of the great Kentuckian ever produced:—the head is fine; the eye actually gleams with life and genius. The admirers of Henry Clay will esteem it a privilege to possess such a likeness.

PHOTOGRAPH OF THE MOON.—We have before us a photograph of the Moon and another of the Boston Custom House, taken with the large equatorial telescope at Cambridge Observatory, by John A. Whipple, Daguerreotypist, No. 6 Washington st. Boston Custom House is very fine—it is well done. The one of the Moon is an object of curiosity, and is deeply interesting to the lovers of science. The surface of the Moon is peculiarly striking. It looks as if it were covered, in some parts, with huge rocks, lying thick as hailstones after a storm. These pictures are an evidence of the chemical action of light independent of heat.

Hydrophobia Cures.

The following is a cure given by a gentleman in a French paper, which he asserts has been used in France for two centuries, with success, and within the last ten years; he says: "I have used it in twenty cases, and always with entire success." This entitles the thing to an experiment; and, certainly, there are enough *outré* ingredients in the compound to ensure a chance of efficacy among some of them. Here is the recipe:—

Wash the wound, while recent, and the adjoining parts with cow's milk, boiled hot, daily, for nine days; for the same length of time, each morning before breakfast, drink a tumbler of the following potion, lukewarm:

Gramme (15.4 grs. Troy).

Root of Angeline	- - - -	30
Root of Gentian	- - - -	30
Venetian Theriac	- - - -	30
Assafœtida, "well crushed"	- - - -	15
Oyster Shell	- - - -	15
Root of the Sweet Briar	- - - -	40
Scorzoneria, the root unpeeled	- - - -	40
Rue, fresh stems, a good handful	- - - -	-
Sage, cut up finely	- - - -	-
Marine salt	- - - -	20
A head of garlic, crushed	- - - -	-
Three heads of leeks, with their leaves	- - - -	-
Two small onions	- - - -	-
A few spring daisies	- - - -	-

Boil these together in a close vessel, with three quarts of good red wine, until one half be evaporated. Strain the liquid and put in a bottle with a ground stopper, and use as directed. The dose for a child should be diminished in proportion to age.

This is the remedy of M. Bee, Senior, schoolmaster, who begs the publisher of the Echo to give it to the world as a sovereign preventive of a fearful malady, and a cure for it in its earlier stages. As the constituents are all attainable without difficulty, there can be no peril in trying it, as every other specific has proved valueless.

The following is another receipt given by a French physician:—

"Take two table spoonfuls of fresh chloride of lime, in powder, mix it with half a pint of water, and with this wash keep the wound constantly bathed and frequently renewed. The chlorine gas possesses the power of decomposing the tremendous poison, and renders mild and harmless that venom against whose resistless attack the artillery of science has been so long directed in vain. It is unnecessary to add that this wash should be applied as soon as possible after the infliction of the bite. From 1810 to 1824, the number of persons admitted into the Breslau hospital was 184, of whom only two died. 1783 to 1824, into the hospital of Zurich, 222 persons bitten by different animals, were admitted, (182 by dogs) of whom only four died.

[We can say nothing of the first receipt; it is a very complicated mixture. We believe

the last receipt is a good one, if applied immediately after the person is bitten; but if the poison has got into the system and is working in it, we do not see what good it can do at all. It is, however, a good wash for putrid sores. We have known of it being used successfully for a bad festering wound from the bite of a dog.

Climate of Oregon.

The Portland Oregonian of April 24th gives the following very alluring account of the climate of Oregon:—

"In looking over the papers from the Atlantic States, one would be led to suppose, from the accounts given of the intense coldness of the weather the past winter, that there must be some mistake in the geographical position sustained by the Atlantic States towards their sister territory here, on the Pacific. While the mercury in the thermometer has become frozen there, we, in Oregon, in a latitude as far to the north as any of those States, have been enjoying the mildness of spring—the warm rays of the sun experienced here during part of the months of January and February, actually reminding us of May weather in New York.

While the ground here has been covered with green grass and gaudy flowers through the winter, there it has been mantled with several feet of snow. On the 20th of January last, a friend sent us a cluster of ripe strawberries, picked on the plains, where they grow spontaneously. They have been in blossom all over the plains during the whole winter. On the 10th of January, 1851, Jesse Applegate, of Umpqua, sent us a great variety of wild flowers, and several specimens of grass, then growing as green and fresh as in June, some blades of which were eighteen inches in length. And this reminds us that while the cattle of our Atlantic friends have been freezing to death in their stalls and sheds, ours have been roaming at large over our plains—unfed, save from nature's granary—and when slaughtered, would make a New York butcher put on his broadest, proudest grin, to think himself the happy vender of such delicious beef."

Railway Accidents in England.

The returns relating to railway accidents in Great Britain, for the half year ending December 31, 1851, have just been published. The number of passengers carried was 47,509,392; the number killed was 113; injured, 264. Eight passengers were killed, and 213 injured from causes beyond their control; 9 passengers were killed and 14 injured owing to their own misconduct or want of caution; 32 servants of the companies or contractors were killed and 11 injured, owing to their own want of caution; 32 trespassers and other persons, neither passengers nor servants of the company, were killed, and 6 injured, by crossing or walking on railways. The length of railways in operation was 6,800.

Singular Invention.

We see it stated in our Western exchanges, that a gentleman near Louisville, Ky., has applied the telegraph to an entirely novel and unique use. He has nearly completed an invention for writing music as it is played from the piano-forte, the notes upon the sheets being produced as fast and to the exact time, as the keys are touched by the performer. Strakosch has offered him \$10,000 for the patent right when the model is finished.

That this can be done is nothing strange, we think, for a patent was taken out by Bain to play on musical instruments by telegraph, but we do not see what benefits can be derived from such an invention.

The Ginger of Commerce.

The ginger of commerce is the produce of a plant growing in both the East and West Indies. In its appearance it resembles a reed, but the stems arise from a root similar to the root of the garden sweet flag, or iris. Like the root of this flower, that of the ginger plant spreads and increases in size every year. From the upper surface of the ginger root arises, in the spring, a green reed-like stalk, about the plant, which are white and lilac, and grow on a separate stem. The ginger we employ as a spice is the root, to obtain which the plant is cultivated in much the

same way potatoes are, and when the stalks have withered, the roots are dug up. The best and soundest of them are selected, scraped quite clean, and carefully dried in the sun, when they are ready for exportation, and use. The inferior roots are scalded in boiling water instead of being scraped; and, these, when dried, form what is called black ginger, a very inferior kind. The color of black ginger, as it is termed, is yellowish grey on the outside, and orange brown within. In shape it is thick and knotty. The best or white ginger, being scraped in preparing it, is less in size not being so thick or knotty; its color is of a light yellow, and its taste is much more pungent and aromatic than that of the black kind.

Much of the ginger root that is now sold by druggists is of a beautiful white appearance; this is done by bleaching it. No good, but evil, is the result of this process, all for the sake of appearances.

Silver and Gold.

The London Times gives some elaborate tables concerning the comparative production of gold and silver, for the last few years.—From these tables it appears that the produce of gold in the world rose from 114,674 lb. in 1846, to 365,950 lb., in 1850. In those five years the increase was at the rate of 219 per cent., while silver only increased from 1,979,084 lb. in 1846, to 2,663,386 lb. in 1850, or 34½ (34.5) per cent. The former metal was in 1850, therefore, apparently increasing at the rate of 44 (43.8) per cent. per annum, and the latter at 7 (6.9) per cent.

The following is the estimated produce of the precious metals, in tons, in 1801, 1846, 1850, 1851, and the probable amount of 1852:

Gold		Silver.	
Tons.	Tons.	Tons.	Tons.
1801	19	856, or 1 lb. of gold to 45 lb. of S.	
1846	42	727,	" 17 lb. "
1850	134	978,	" 7 lb. "
1851	180	1002,	" 5 lb. "
1852	242	1027,	" 4 lb. "

Parker's Wheel.

The people in New Hampshire are determined to test the claims of Parker's Patent by an action at law, before they pay any taxes. No one can find fault with this, if too much is claimed by the plaintiffs. Pay Mr. Parker his just rights, gentlemen, but no more; if you do not infringe his patent you have no right to pay him; if you do, in good justice he should be paid; the right must first be established, and we hope the law-suit will be conducted openly, plainly, and candidly, without *great counsel* or much expense, so as to do justice—find out the rights of both parties.

Farming in Big Style.

Mr. Mechie, of Tiptree Hall, England, the same gentleman on whose farm McCormicks Reaper accomplished its great triumph, goes into farming in a style altogether surprising to us here. In a letter to the London Times he says:—

"It may be interesting to some of your agricultural readers to know that my 'irrigation by subterranean iron pipes with hose and jet, worked by steam power,' is completed on 170 acres. It is not necessary here to enter into details; suffice it to say that the cost, independent of steam engine, is £3 15s., (\$18 18) per acre, added, as it were, to the fee simple of the estate. The working cost of conveying and applying to each acre 15 tons of liquid manure, or water, equivalent to a heavy rain of five hours' duration, is about 1s. 6d. per acre. The liquid is distributed through a fan like gutta percha spreader, issuing as a broad, thin, glassy sheet, and descending in heavy drops like a thunder shower. I may be thought rather speculative when I anticipate that within a century from this period the sewerage from our cities and towns will follow our lines of railway in gigantic arterial tubes, from which diverging veins will convey to the eager and distant farmer the very essence of the meat and bread which he produced at so much cost. We shall then no longer commit the folly of wasting our own manures, to replace them, at an enormous cost, by importations of bird's dung from the Pacific."

Here we have an instance of a farmer expending more than eighteen dollars on every acre for one single improvement.