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RAIL-ROAD NEWS.

Examination of Railroads.

MESSRS. EDITORS—In reading the article in No. 14 of your journal "The Way to Examine a Railroad," I was led to the conclusion that it would be well for the presidents of other roads to pursue a similar plan. A few days since, while walking on the New York and Erie road, in company with a friend, I observed, within the distance of a mile, six of the keys used in the chairs entirely out and lying by the side of the rail, and several more partially out on the side on which I was walking. A number of the rails were badly split,—in one case the splinter was over two feet long, and so loose that my weight, in stepping on it, would press it together, apparently, a quarter of an inch; in another place the rail was crushed down so far that its upper surface was not more than one and a half inches wide. On arriving at a bridge, I asked the flag-man if those rails were safe; "oh yes," he replied, "perfectly safe, it is no matter whether the keys are in the chairs or not, the spikes will hold them." But it appeared to me they were *not* safe. C.

Elmira, N. Y.

New York and Erie Railroad.

This road is the longest, under one corporation, in the United States, and its construction was the greatest undertaking ever projected, so far as natural difficulties were to be overcome, and the great amount of money required to complete them. The yearly report, for 1851, is a very favorable one; the whole cost of the road and equipment was $23,580,000. The receipts, last year, were $2,776,919, 59. It is calculated that the receipts, next year, will be as much as $4,000,000, and the running expenses only 48 per cent. of the receipts. It is intended to construct 100 miles of a double track in 1852.

New York and New Haven Railroad.

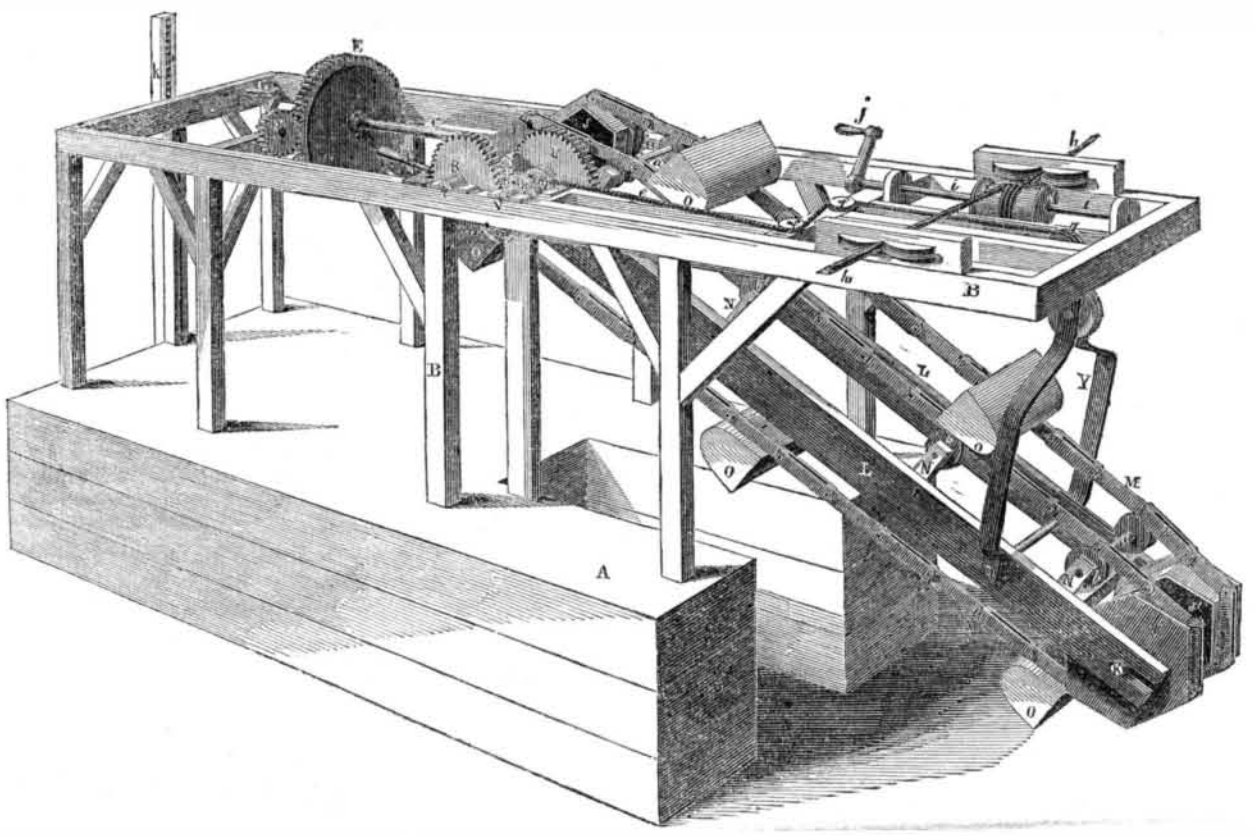
The number of passengers conveyed over the New York and New Haven Railway during the months of July, August, September, October, and November, 1851, was 298,020. During the same months last year, the number was 352,853. Increase in five months this year, 46,076. The average number of passengers carried daily the present year is 2,400.

Creosote.

Persons cannot be too cautious how they use this dangerous liquid. The Williamsport (Maryland) Sentinel gives the following account of a recent case in that town:—"A gentleman purchased creosote of one of our druggists, and after applying a portion to the tooth, he rubbed a small quantity on the gums and cheek of one side of his face. Shortly the muscles on the face on that side commenced to contract, and refuse to close. More than a week elapsed yet the disfiguration still continued. The safest plan is not to use creosote."

Barley straw is the best for filling mattresses, and should be preferred to wheat, oat, or other straw.

FRASIER'S IMPROVED EXCAVATOR,



The accompanying engraving is a perspective view of an improvement in apparatus for excavating or dredging in rivers and harbors, and invented by Mr. Anthony Frasier, of Montezuma, Cayuga Co., N. Y., as briefly noticed by us last week, and who has taken measures to secure a patent for the same.

A represents a scow, and B B the frame erected on the same to support and sustain the machinery. L L is the movable frame that supports the buckets, O O, which are secured on two endless jointed chains, M M, which revolve around the ends of the frame, L, which has octagon sheaves, J' J', fixed on a shaft, K, at the lower end. The chains run over friction rollers, *b*, above, which are supported on uprights, N N. By applying the power of the steam engine to the crank, G, the pinion, F, takes into the cog wheel, E, which moves the shaft, C, and this has a bevel pinion (not seen) which takes into the bevel wheel, and moves the shaft, I, on which are the upper octagon sheaves, J J, of the bucket frame, and these are made to revolve, giving motion to the chain of buckets; thus the way the buckets are made to revolve will at once be understood. The distinct features of the improvements are now to be described. One principle of this improvement is, that, without the scow moving, the scoops can cut out or excavate any depth—two, four, or more feet in one place. To do so, the bucket frame is made to descend, and to descend so exact that if one bucket cuts only five inches deep, the frame will have descended exactly five inches, when the next bucket begins to act or excavate. This is done by feeding down the bucket frame by appropriate gearing. Y is a large double bracket secured to the outer part, near the end of the bucket frame. It has a pulley at its upper part, placed between the shoulders of the said bracket. The end of a chain or rope is made fast to an eye on the top of the double bracket, from thence it passes over a small grooved pulley, *g*, then down over the pulley between the shoulders of the bracket, and from it up over another small pulley, *g* (there are two, beside one another, on the same spindle), secured on the top permanent frame. From this the said chain or rope, *e*, passes along over the peripheries of two separate horizontal pulleys, *f f*, and then over a windlass roller, W, to which the other end is made fast. It is the motion which the said windlass receives that feeds down the bucket frame gradually, as spoken of, or lifts it up suddenly, as may be desired. A clutch is employed to work the windlass, W, as desired. The head of the clutch is not seen, it is placed on the main shaft, I, of the bucket frame, and always revolves with it, but by a feather it is made to slide backwards and forwards on the same shaft, to take into catches on the inside of the large cog wheel, R, and into catches on a collar of a pinion (not seen) close to J, which takes into the large cog wheel, U, on the windlass shaft. T is the lever or handle of the clutch. If it is desired to raise up the bucket frame quickly, the clutch, by the handle, T, is made to take into the catches of the large cog wheel, R, which then moves with the shaft, I, and acts upon the pinion, P, on the windlass shaft, V, which turns the said windlass quickly, winding up the rope or chain, *e*, on it, and thus raising the bucket frame rapidly. By throwing out the clutch between the wheel, R, and the pinion inside of it, the said wheel will not revolve, the shaft, I, will revolve inside of it, while the clutch will revolve with the shaft between the pinion and the cog wheel, R. To feed down the bucket frame regularly to excavate or scoop to the depth spoken of, the clutch is made to gear into the pinion inside of R, which gears thereby with the cog wheel, U, on the windlass shaft, and gives it but a slow motion. It is the relative proportions of the said pinion and the said cog wheel, U that feeds down the bucket frame in a proper manner. Thus the feeding and raising of the bucket frame are explained.

By the arrangement of the buckets, they pass over the sheaves, J' J', and cut their whole width under, at a depth below the said sheaves or ways. This is an improvement over the arrangement of buckets which scoop between *ways* on the frame; *k* is a setting post to retain the scow. The rope, *h h*, passes over a drum on the shaft, *i i*, and is worked by a crank, *j*. This rope extends to a pole on each side (not shown), but driven down to steady the vessel and hold it fast. By turning the drum in any direction, the rope, *a*, will bring round the head of the scow to the one side, as desired, and thus its position for excavating in a new line can be easily brought about; the post, *k*, is also shifted to bring round the stern. We believe that the various movements and operations will be easily understood from the foregoing description.

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

Vegetable Extracts and Quack Medicines.

It is quite common for dealers in quack medicines to advertise the same as being "purely vegetable." This is presuming upon the ignorance of the multitude. At one time, long ago, vegetable medicines, with the exception of alum and sulphur, were exclusively used, and when science had developed the virtues of mineral medicines, old prejudices were soon arrayed against the evils of the "new drugs" The same prejudices still exist in the minds of many, hence we hear of "herb doctors" being the most safe. They believe that mineral medicines are more dangerous, but this is all sheer nonsense, for the most virulent poisons are extracted from herbs. What is opium but a vegetable extract, and beside this a great number of minerals are extracted from vegetables, at least they can be. Morphine, *nux vomica*, strychnia, solania, nicotine, and many other dreadful poisons, are vegetable extracts. How nonsensical then to speak of medicines being more safe or valuable because they are obtained from vegetables. It is well known that mushrooms—a certain kind—are cooked and used as an article of diet, yet in the class of mushrooms there are some deadly species, yea, the species generally used for the table, at some seasons and when growing in some localities, are highly poisonous. A few weeks ago we read an account of some Bavarian officers, who were poisoned by eating common table mushrooms, and they died in the most frantic delirium, in spite of the best medical skill and attention.

Adulterated tea is becoming more common every day. There is scarcely a pound of good tea to be found: it is adulterated first in China, and then it undergoes a finishing process when it comes here.