

NEW INVENTIONS.

Mr. William L. Davis, of South Amboy, N. J., has patented an improved car coupling constructed with a bumper head made open at top and bottom, and having a hook connected with the inner parts of its sides by a pin; with this pin is also connected sliding bars or the sides of a link for turning the connecting pin to raise and lower the hook, and connected at their outer ends by a pin to adapt them to serve also as a coupling link.

An improvement in that class of chairs in which the rockers, legs, arms, back, and seat are so arranged with relation to each other that they may be folded together, when not in use, so as to occupy less space, and be easily transported, either singly or in quantities for shipping, has been patented by Mr. William H. Gifford, of Poughkeepsie, N. Y.

Mr. George S. Moler, of Ithaca, N. Y., has patented an improvement in call instruments for telegraph lines, the object of which is to allow calling of any one station on the line, and at the same time indicate at all stations that the line is in use. The invention consists in polarized armatures and ratchet mechanism combined with the call bell for setting the instrument and selecting the bell to be rung.

Mr. Henry Glass, of Golconda, Ill., has patented a flux, consisting of fluorspar, pure carbonate of lime, silex, alumina, and oxide of iron.

A hair pin which, when inserted in the hair, will so grasp and hold the lock or mass of hair inclosed within the prongs that the hair pin will not be liable to drop or work out from the hair, has been patented by Mary T. Foote, of Boston, Mass. The ends of the hair pin are first bent out and then in toward each other, so as to form at the point a clasp which seizes and holds a lock of hair, and the exterior shoulders of which bent portion also prevent the pin from slipping out.

A novel hay and straw burner has been patented by Messrs. Martin B. Parker and Richard W. Richards, of Blue Earth City, Minn. In this device the fuel can be compressed while being burned, and a draught space kept open all around the said fuel.

Mr. Otto Mossberger, of Guttenburg, N. J., has patented a spittoon provided with swinging covers to obstruct from view the contents. The invention consists in blocks sliding vertically in guides on the spittoon, and having foot levers connected by cords with arms of the pivoted covers, so that the covers can be raised or swung open by pressing one of the foot levers.

NEW STOCK-ALARM FOR LOCOMOTIVES.

In some portions of the country one of the difficulties of railroading is the occupation of the track by cattle, and it is often with no little difficulty that the animals can be frightened away by the means ordinarily available; the result is the loss of cattle and often the loss of human life, and the destruction of railroad property.

The engraving represents a very simple and efficient device calculated to frighten cattle by both visible and audible signals. The device consists of a steam pipe, A, leading from the boiler of the engine, under the cow-catcher, and connecting with a bent pipe, E, secured upon the nose or lower rail of the cow-catcher, as shown in Figure 2. This pipe is perforated with numerous small holes. In the steam supply pipe there is a cock connected by a rod to the lever placed in the cab in convenient position for operation by the fireman or engineer. In most cases the supply pipe enters the boiler at or a little below the ordinary level of the water, so that upon turning the cock some water will be forced out with the steam and thrown some distance ahead of the engine. This is very effective in frightening and driving the stock off the track. In case the water in the boiler is below the pipe, the cloud of vapor and the hissing noise produced by the escape of steam will be effective in frightening and driving off the animals. The pipe, however, in most cases will be located so that upon opening the cock both steam and water will be ejected from the perforations of the pipe.

This invention was lately patented by Mr. Willard A. Place, of Lincoln, Neb., who should be addressed for further information.

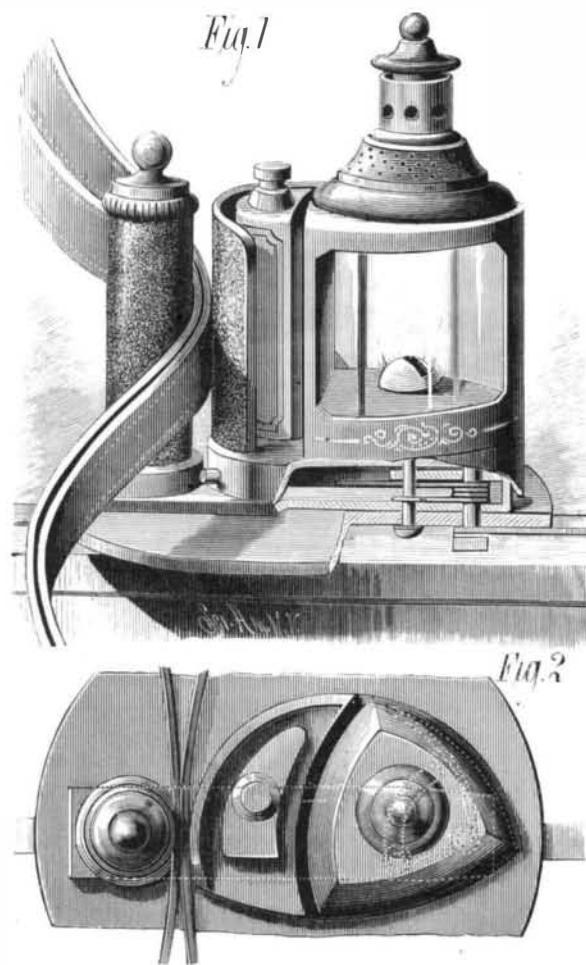
Railway Wear and Tear.

A curious fact was lately mentioned by Mr. F. W. Webb, president of the Manchester Association of Employers, etc. The Northwestern Railway Company, he stated, used steel rails, and yet the wear under the ordinary traffic of the road

was so great that one-third of a pound of steel was lost on every mile run, or 1,500 pounds every hour of the day. The collective wear of the locomotive engines, of which there are 1,679, was such that a new engine was required to be put into the traffic once in five days.

NOVEL REIN-HOLDER.

The engraving shows a novel rein-holder lately patented by Mr. Nathan S. Whitney, of North Alton, Ill. It can be



WHITNEY'S IMPROVED REIN-HOLDER.

attached to the dashboard of a vehicle or to a frame behind or in front of the dashboard, or it may be placed in any other convenient position. It may be provided with a lantern, as in the engraving, or it may be made very plain and inexpensive. Figure 1 in the engraving is a perspective view, and Figure 2 a plan view.

A cylinder made of metal, with a roughened or serrated outer surface, is attached vertically on a base plate by a screw bolt, which also passes through an aperture or slot in

The casing is provided with panes of glass and with a lamp connected with an oil reservoir, separated from the lamp by a double walled partition, which prevents the oil from being heated. The casing is also provided with a shield which prevents the heat of the flame from acting on the burner and oil tube. The inner wall of the lantern is removable to admit of lighting and trimming the lamp. The top of the inner casing is provided with a chimney, and is thoroughly guarded against the wind. The base plate is attached to the top of the dash board or to a metal standard fixed to the vehicle, behind or in front of the dashboard, and extending across the front of the vehicle.

The casing swings on its pivot, and when the reins are to be held the casing is turned so that the distance between the casing and the cylinder is increased sufficiently to admit the reins. The casing being then released, the reins will be pressed between the casing and the cylinder. If the horse pulls on the reins the surfaces of the cylinder and the casing will approach still nearer to each other and the reins will be held more firmly between them. The apparatus is so arranged that the driver, by pulling on the reins, may release them from the holder.

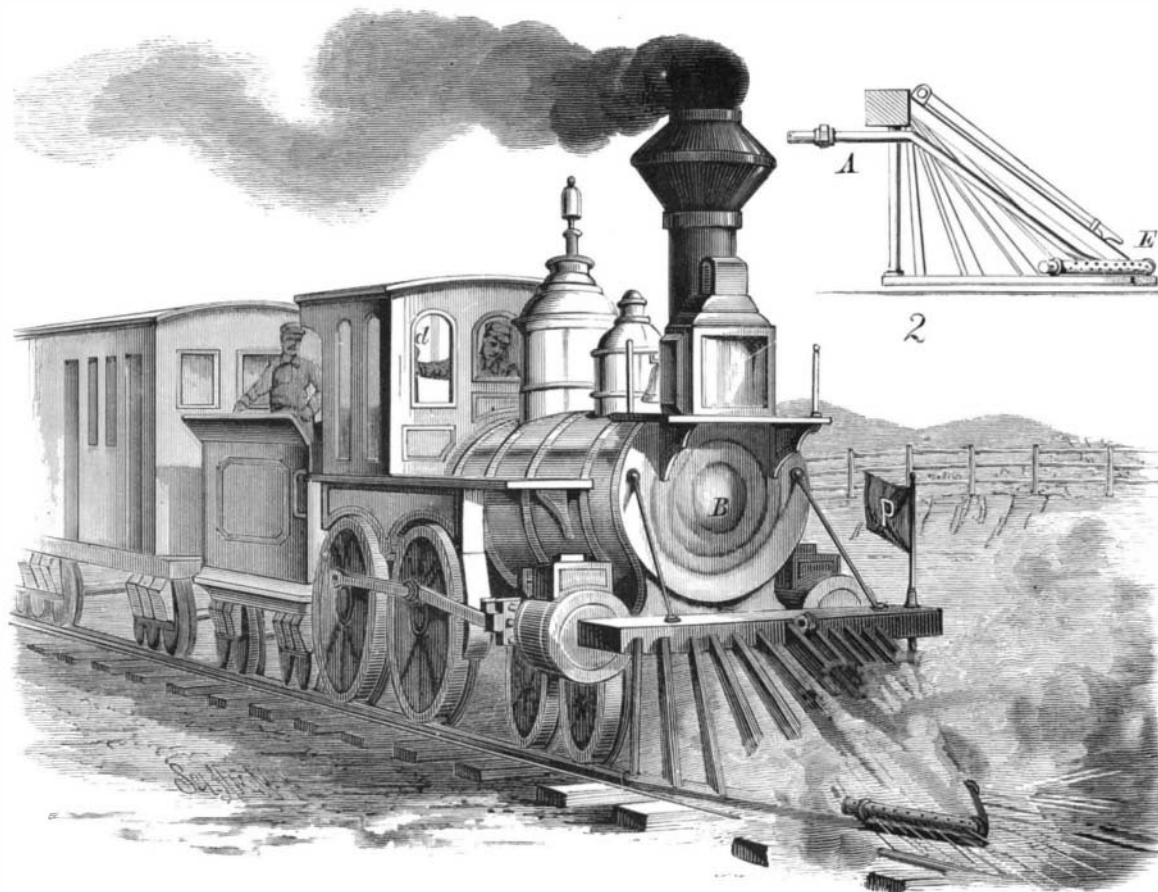
Habits of Orinoco Natives.

A French naval doctor, M. Crevaux, has lately made important explorations in the northern parts of South America, more especially in the valley of the Orinoco and its affluents. Among other facts of observation, he states that the Guaraunos, at the delta of that river, take refuge in the trees when the delta is inundated. There they make a sort of dwelling with branches and clay. The women light, on a small piece of floor, the fire needed for cooking, and the traveler on the river by night often sees with surprise long rows of flames at a considerable height in the air. The Guaraunos dispose of their dead by hanging them in hammocks in the tops of trees. Dr. Crevaux, in the course of his travels, met with geophagous, or earth-eating, tribes. The clay, which often serves for their food whole months, seems to be a mixture of oxide of iron and some organic substances. They have recourse to it more especially in times of scarcity; but, strange to say, there are eager gourmands for the substance, individuals in whom the depraved taste becomes so pronounced that they may be seen tearing pieces of ferruginous clay from huts made of it and putting them in their mouths.

Ocean Telegraph Cable.

At a recent meeting of the stockholders of the Anglo-American Telegraph Company, London, Viscount Monck, the chairman, said he was happy to inform them that their cables were all working, and were in good condition. One of the cables had been broken close to the shore at Valencia in one of the storms which occurred last autumn, but he was happy to inform them that since the report was presented that cable had been restored to working condition, and was now doing its duty equally with the rest of their cables. Bad weather—storms for instance—were unfavor-

able to cable property. They were injurious to it in two ways—first, mechanically, because they found that the action of the waves in shallow water had a great tendency to fray the cables, and so destroy their efficiency; and that actually occurred the other day in the case of the 1874 cable, the repair of which he had just announced to them. But there was another mode in which storms and atmospheric disturbances affected their cables very much, and that was the effect they had on the electrical conductivity of the cables. When the atmosphere became surcharged with electricity it very often happened that the electrical conductivity of their cables was either diminished or possibly wholly destroyed. Luckily they had escaped anything of that kind this year, but on former occasions it had occurred, and might occur again. He thought that the state of their cables was matter for congratulation. He would remind them that one of their cables, which was working with perfect efficiency (the French cable from Brest to St. Pierre), had now been nearly thirteen years



PLACE'S STOCK ALARM FOR LOCOMOTIVES.

one end of a strip of metal, resting on top of the base plate and below the bottom of the roughened cylinder. The opposite end of this strip supports one end of a casing provided with curved sides, roughened or serrated on the outer surface, and pivoted eccentrically so that it may act in conjunction with the roughened cylinder in holding the reins. The casing is pressed forward toward the roughened cylinder by a spiral spring coiled around its pivot.

under the ocean. He believed he was correct in stating that it was the oldest Atlantic cable in existence—it had lasted longer than any other Atlantic cable laid down. It had been necessary to take a fault out of that cable, and for that purpose it had been lifted from a depth of 1,700 fathoms—a fact which he considered was matter of congratulation, and one showing that the cable must originally have been of very good stuff.