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Rail-Road News.

For the Scientific American.

Ohio and Indiana Railroad.

The increasing demand for a good eastern connection from the once "far west," with the cities of New York and Philadelphia, the necessity of which has been very severely felt, both in the East and West, has been the means of impressing upon the citizens of this section of Ohio and North Eastern Indiana, the immediate necessity of constructing a railroad from Fort Wayne, Indiana, to Crest Line, the Western terminus of the Ohio and Pennsylvania Railroad. After obtaining a liberal charter, the citizens of Crawford, Wyandot, Allen, and Van Wert Counties, Ohio, and Allen Co., Indiana, subscribed liberally to the stock of the company, which, with the county stock along the line, now amounts to $475,000, leaving a balance of $50,000 necessary to grade and bridge the road, which will be, no doubt, early subscribed. The benefits of this road will be immense, opening to New York and Philadelphia a wealthy country, which is entirely without any direct communication with the East. The road will be about 132 miles long, a great portion of which is now located, and the directors expect to let the whole road early this fall. The easy gradients, and curvature, with its very long straight lines, and the remarkable cheapness of its construction, will place it as a No. 1 railroad not only in transit but in money making. J. H. S.

Bucyrus, Ohio.

Novel Life-Preserver for Railroads.

A. C. Castil, M. D, offers a suggestion through the New York Tribune, for an invention to save the lives of persons coming in the way of a railroad locomotive. He proposes that diverging strong iron rods in the form of the horizontal letter V be attached to the cow-catcher, projecting forward from both sides of the grating. That the lower rods shall not be more than eight or ten inches above the track. That a strong but very yielding gum elastic band, three inches wide, be attached to, and extended across to each lower rod. That the upper rods shall be but half the length of the lower ones, and from the lower to the upper rods shall be secured a hollow gum elastic bag, its surface occupying the space of the whole width of the locomotive, thus in the form of letters ⊳C(⊲ represents the rods attached to the cow-catcher and C attached to the rods, represents the hollow sack for catching the human object.

[The best plan, in our opinion, to prevent the accidents spoken of, is to have the tracks fenced in and plenty of guards on the route. The sack would present a great resisting surface to the progress of the engine. The above plan, however, can be easily tried, and thus its utility may be easily solved. We go for experiments in testing the merits of inventions.

BRONSON'S IMPROVEMENTS IN SAWING FRAMES.

Figure 1.

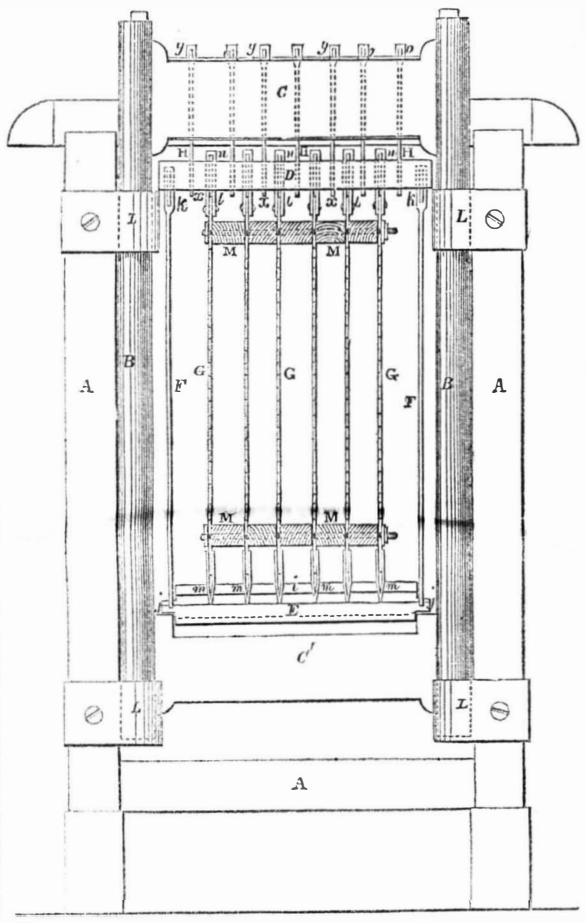
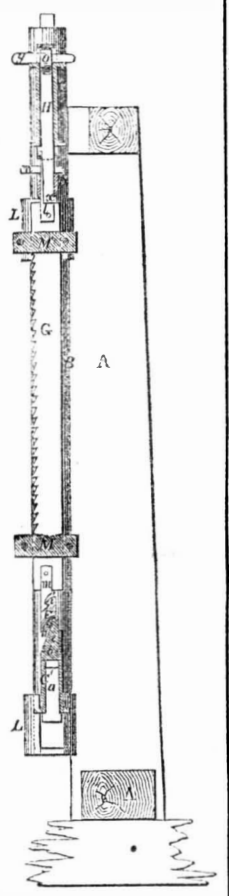
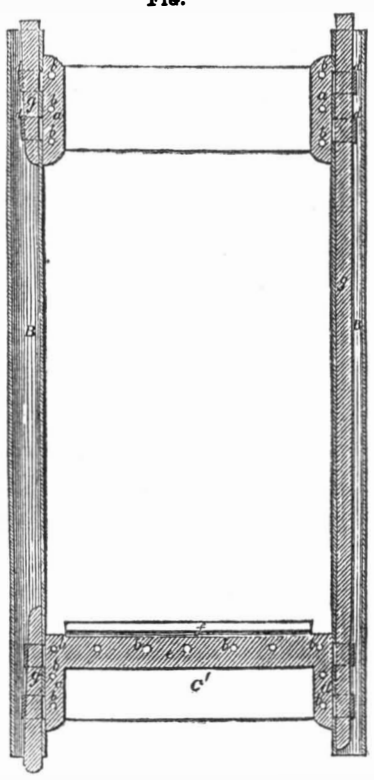


Figure 2.



The accompanying engravings represent improvements in Saw Frames, invented by Mr. William C. Bronson, of Erwin, Steuben Co., N. Y., who has taken measures to secure a patent for the same. Figure 1 is a front elevation of part of a saw mill; figure 2 is a vertical section, taken transversely to figure 1. Figure 3 is a vertical section of the saw frame. Figure 4 is a horizontal section of the saw frame taken at the top. The same letters refer to like parts.

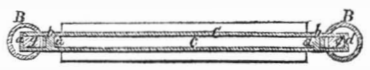
FIG.



The improvements consist in the construction of the frames, whereby great strength is combined with lightness, and it can be easily taken to pieces and put together so as to render it portable. A false frame is also provided, by which a gang of any number of saws can be hung independent of the main frame, so that the whole or any of the saws can be quickly removed, for the purpose of sharpening or setting, and another gang put into the main frame without stopping the mill but for a few minutes. The mode of hanging the false frame is also new.

A A represents part of the mill framing in which the main saw frame, B B and C C′, is hung. B B are two wrought-iron tubes of suitable length to form the sides of the saw frame; C C′ are two cross-stretchers of wrought plate iron. The upper stretcher, C, is double as seen in figure 4, the two sides having a space, *c*, between, are kept apart by blocks, *a a*; these blocks are secured by rivets, *b b*, figs. 3 and 4. The ends outside the blocks are formed into loop tenons, *d d*, which are fitted into the tubes, B B. The stretcher, C′, is double the same as the upper one, but the two sides have the filling pieces united by a piece, *e*, fig. 3, extending from the two ends and standing above the sides, tapering and forming a tongue, *f*. It also has loop tennons, *d d*, fitting into the tubes, B B. The filling pieces at the ends, between the two sides of the stretchers, fit close to the tubes, and the stretchers and tubes are secured by keys, *g g*, of wood or metal, fitting into the loops and the tenons within the tubes. These keys may be rods extending the entire length of the tubes, or one rod for every end of a stretcher. The keys are slightly tapered to draw the tennons and loops together. The tubular sides of the frames fit into suitable guide boxes, L L, in the frame, A. D E F F

FIG. 4.



is what is termed the minor or auxiliary frame. D is the cross-head formed of double wrought-iron plates, with an opening between, but united at the ends. E is a cross-tail formed of a wrought-iron bar, having a V shaped recess along its back, forming, with the tongue on the lower stretcher, C′, a lappet—the projection of the one fitting into the recess of the other. On the front side, the upper part, *i*, of the cross-tail, E, is of single plate doubled over, forming a hooked rim. The extremities, *j j*, of this cross-tail are narrower than the rest of it, and the upper edge is tapering. F F are two flat metal side bars, with notches on their lower ends, fitting snugly over the tapering edges, *j j*, of the cross-tail; these bars have their upper ends of a narrow loop form, fitting into the slot of the cross-head, D, and extending a little below it of a wider form, like shoulders for the cross-head to rest on. *k k* are keys passing through the loops below the cross-head. The cross-head and cross-tail are held together by the saws, but kept at a proper distance apart and parallel by the rods F F.

G G are they saws, the have metal straps, *l l*, attached to their upper ends, the said straps passing through the slot or opening between the sides of the cross-head, D. *m m* are hooks attached to their lower ends, which catch into and hook with the doubled-over rim of the plate, *i*. The saws are tightened by wedge keys, *n n*, passing through the straps, *l l*, above the cross-head. M M are blocks of wood placed between the saws to keep them at a suitable distance apart. H H are suspension rods passing through the slot, *c*, of the upper stretcher, C. The upper ends are loops, and their lower ends, *x x*, have T heads extending across the slot and supporting the plates of the cross-head, D. *y y* are keys passing through the loops above the stretcher, thus securing and tightening the minor or auxiliary saw frame within the main frame.

The saws are properly hung in the auxiliary frame, and set ready for use before being put into the main frame. The auxiliary frame is put into the main frame with great facility by hooking *h* and *f* together, as represented by figure 2, inserting the suspension rods and then keying them up with the wedges, *y y*. The whole of the saw frame including the main frame, &c., is rendered quite portable for transportation, &c. The main frame can be taken apart by drawing the keying rods, *g g*, and the auxiliary frame by drawing the keys, *n n* or *k h*. They can both be put together in a few minutes, fit for any reciprocating mill, without any preparation, as it requires no guides or fence posts to be fixed for it. Its own sides form the guides; the boxes, L L, have merely to be fixed to the mill framing. It will be understood that the auxiliary is the saw frame, but the *main* and auxiliary are terms to distinguish the two. It is intended to employ two minor or auxiliary saw frames in every mill, so as to keep one gang of saws always in readiness, and thus replace the gang which requires to be sharpened, &c. The stoppage for this purpose will be only for a few minutes. In connection with this Mr. Bronson has also an improved method of hanging the saws direct in the main frame.

More information about this useful improvement may be obtained of the inventor by letter, addressed to him as directed above.

Protecting River Banks.

The Brunswicker, of Missouri, advises the people of that place to protect the banks from the encroachments of the Mississippi by dyking. This is right—and the sooner they go about the business so much the better: "a stitch in time saves nine. A good plan of dyking is to drive down two rows of piles with a space of about 10 feet between, filling that in with brush, and sinking it with heavy stones. This is also a good plan of making firm roads through swamps.