New Inventions.

Portable Staging.

The annexed figure is an elevation of a new portable staging ready for use, for which a patent was granted to Wm. P. Goolman and Samuel Morris, of Springtown, Ind., on the 19t of last Sept.

The nature of the invention consists in so connecting two platforms or separate standards, that the operation on one of them can raise or lower both simultaneously, also in hinging the rails of the connecting platform to use part of its length, or folded so as to occupy less space in transporting from one place to another.

A A are two square frames consisting of two side bars, B B, connected by the cross bars, C C C′, fastened to them. In the center of each of the middle cross bars, C′, the hollow standard, E E, are fastened, and supported by braces, D D, &c., as represented, extending from the corners of the frames, A A′, to the standards, E E. Each of the frames, A A, are provided with four rollers, F F, upon which the frames may be moved. The traversing platforms, G and G′, are fitted to traverse on the standards, E E.

To make the platform, G, the four parts, H H, are connected together by the four bars, I I, near the top, which are fastened to them, and by the four bars, J J, near the bottom; the four last named bars, in connection with the bars, L L L L, form the frame for the floor of the platform to rest upon, which floor is properly fastened to said frame.—There are four rollers, N N, at each end of the frame between the posts, H H, which rollers are provided with pivots which turn in holes in the posts, as the rollers roll against the left standard, E, when the platform is traversed upon it. There is a windlass, O, provided with a crank, P, which windlass turns in the boxes, Q Q, fastened to the posts, H H, to wind up the rope, R, fastened to it, and raise the platform, which may be held at the desired hight by the pin, S, inserted in the post, H, to prevent the crank, P, from turning. The rope, R, passes over the sheave, *d*, in the top of the standard, E, and descends through it, and under the sheave, *a′*, at the bottom, then across under the sheave, a^2, at the bottom of the right standard, E, and up by the side of the standard to the platform, G′, on said standard to which it is fastened, thereby connecting the two platforms, so that if the platform on this standard is traversed in either direction it will traverse the platform on the left standard, E, the same distance in the same direction, so that the staging or bridge, T, will be moved the same distance up or down at each end, and continue in a horizontal position.

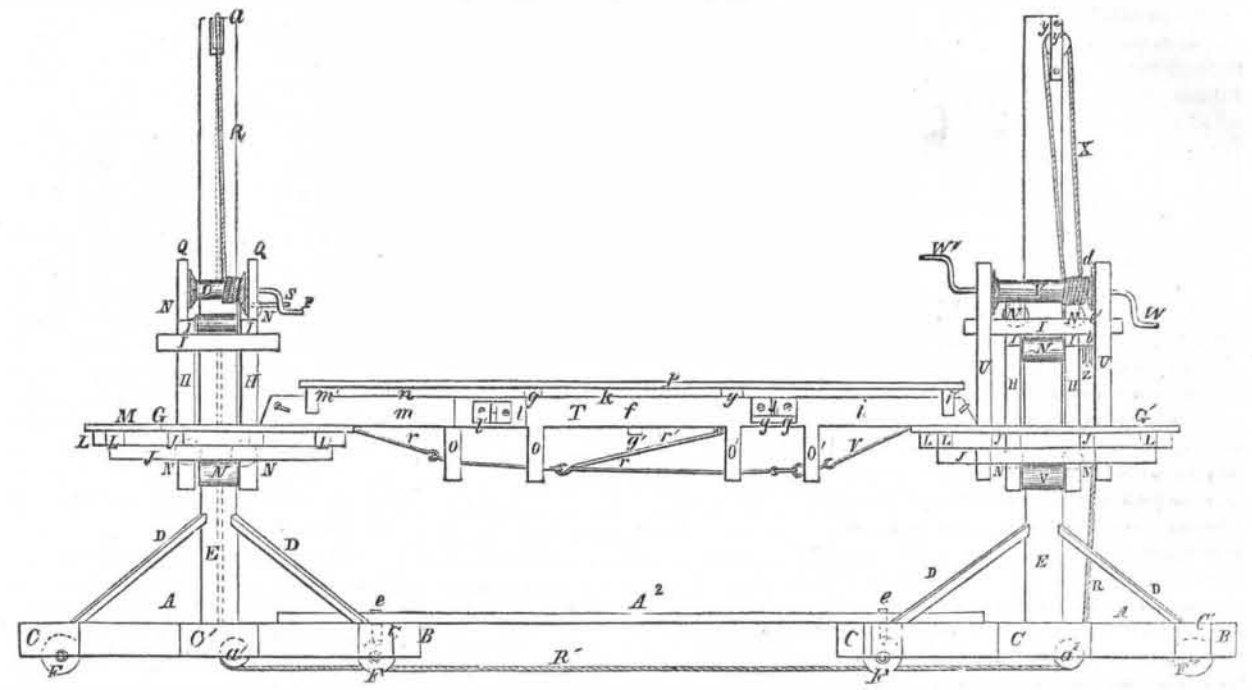
The frame of the platform, G, on the right standard, E, is similar to the frame of the platform upon the left standard. E, except that it has four additional posts, U U, fastened to the cross bars, J J. It is also provided with two windlasses, V V′, fitted to turn in boxes fastened to the posts, U U, and provided with cranks, W W′, by which they may be turned to wind the rope, X, which is fastened to each of them, and passes up over the sheaves, Y Y (which turn behind the brackets, Y′ Y′,) fastened to the sides of the left standard, E, and down under the sheave, *x*, which turns behind a bracket, *b*, fastened to the bar, I, of the frame. Each of these windlasses is provided with ratchet wheels, *c′*, which are caught by the pawls, *d*, which vibrate on screws in the posts, U U, so as to catch and hold the windlasses as they are turned to wind up the rope, *x*, which draws up the platform, G′. A stiff plank, A^2, is laid across from the one frame, A, to the other frame, A, and some pins put in to prevent the rope, R, from drawing the frames together by the weight of the platform, G.

The center frame of the bridge, T, consists of the two side bars, *f*, connected together by the cross bars, *g g*, at the top, and the cross bar, *g′*, at the bottom, which cross bars are frstened to the side bars; the diagonal braces, *h h*, between the bars, *g g*, hold the frame square. The bars, *i*, on each side, are connected to the bars, *f f*, by hinges, *j*, and have the cross bar, *i′*, locked into them by cutting a scow in each piece, and then the end frame is braced by the diagonal braces, *k k*, as represented. The cleats, *l l*, are fastened to the bars, *f f*, and similar cleats are fastened to the bars *m m*; to these cleats the hinges, *l′ l′*, are fastened, so that when the bars, *m*, are swung round there will be room for the bars, *i*, between the bars, *f* and *m*, when the apparatus is folded up for transportation after removing the end cross bars. *i* and *m′*, the frame consisting of the bars, *m* and *m′*, is braced by the braces, *n n*. There are some posts, *o o*, *o′ o′*, fastened to the bars *m*, *f*, and *i*, which posts are provided with scores near their lower ends for the rods, *r r r*, which are hooked together, and extend from the outer end of the bars, *m*, to the outer end of the bars, *i*, to sustain and support the middle of the bridge, T. To complete this bridge boards or planks, *p*, may be laid upon the bars, *m′*, *g g*, and *i′*, for the workmen to walk on. In using this staging the workmen on the platform, G, can raise or lower it by turning the crank, P, and the workmen on the platform, G′, can raise or lower both platforms at the same time by turning either or both of the cranks, W and W′, so as to traverse the platforms and continue the bridge, T, in a horizontal position.

This portable staging can be used as a scaffolding for masons, etc., and can also be ,ang s gised by farmers for therin fruit; it portable, easily elevated and lowered, and very adaptable.

More information may be obtained by letter addresed to the patentees.

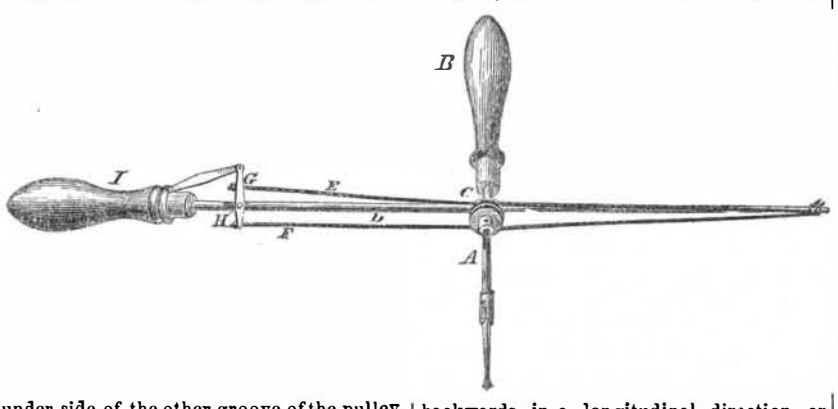
PORTABLE STAGING.



OPERATING HAND DRILLS.

The annexed engraving is designed to show C. S. Harris's patent for producing a continued circular from a reciprocating rectilinear motion as applied to hand drills.

A denotes the drill mandrel, which is extended from and made to freely rotate in a handle, B. On this shaft or mandrel a double grooved pulley, C, is fixed so as to turn with the shaft. Extending over this shaft, between the pulley and handle, B, is a long rod, D, which is made to move freely in and out of a handle, I. A lever, G, connected at its upper end to the handle, I, is made to freely rock on the pin or fulcrum, H. Attached to one arm of the lever, G, is a cord or band E, which is continued to the top surface of one of the grooves of the pulley, C, and wound once round said pulley, and extending therefrom and fastened to the end of the rod, D. Another cord or band, F, has one end attached to the other or lower arm of the lever, G, and is from thence continued to the



under side of the other groove of the pulley, C, and thence wound round the said pulley and continued and fastened to the end of the rod, D. The whole being substantially as seen in the engraving. The length of each cord is to be such that when the lever, G, is turned on its fulcrum in either direction, it shall draw one of the cords tight and loosen the other. Now if while the handle, B, is grasped in the left hand of a person, the handle, I. is taken by him in his right hand, and he moves it and the rod, D, forwards and backwards in a longitudinal direction, or with a reciprocating rectilinear motion, he will produce a continued circular rotation or motion of the drill shaft. Each of the cords, E F, being alternately drawn upon and loosened by the peculiar action of the lever, G, induced by the pressure and draught of the handle, I. This is a neat and convenient improvement.

For further information concerning the above drill, address S. A. Gould & Co., Newton Upper Falls, Mass.

New Fog Bell.

A fog bell for the U. S. Lighthouse Board, has been in operation by J. D. Caster, of Morristown, Pa., which embraces a new striking arrangement of his invention.

The intention is to have each lighthouse known by its number of strokes and pauses in time of fogs. This striking apparatus strikes six in twenty-four seconds, when a pause of twenty-four seconds takes place, &c., as long as it is kept wound up. It has an inexhaustible retaining power which keeps it striking the same while winding as when not winding. This is accomplished in a durable manner by means of two winding pinions, one winding fulcrum shaft, two winding spur wheels, and one support balance piece all on the second wheel and its shaft. The winding fulcrum is thrown on the second wheel, near the rim, by means of the winding fulcrum shaft, which passes through the wheel at that place, so as to propel the striking works while winding up by its reaction on the wheel, when the winding force causes the first going pinion and main wheel to go backwards during the time of winding.

The pause is made by an escape wheel on the fan pinion, and a verge and short pendulum on a balance drop. A small wheel in front moves round in six strokes of the hammer. A pin in its rim raises the balance drop, and brings the verge into the escape wheel on the fan pinion, and the pendulum vibrates until the drop falls, when the striking again commences, and so on.

A Telegraph without Wires.

The Scientific American, two weeks since, noticed some experimente made on a railroad in Italy, to communicate by telegraph with a train of cars in motion. I have since seen a number of paragraphs to the same effect in other papers. As this invention is no doubt of great value, and would be so to all our railroads, I would like to know something about it, for I cannot see how this can possibly be done. Can you give us any information on the subject? J. W.

New York, June 26, 1855.

[We are not acquainted with the precise method of the plan said to have been carried out successfully on the Italian railroad to which our correspondent refers. If the line of rails be laid on non-conducting sleepers, so as to be well insulated, we can easily conceive how a battery in a car, having the wheels forming part of the circuit, and the rails a substitute for wire, convey messages from a station to the car, or from the car to a station, no matter how fast the train may be running. The chemical telegraph would be the best one to employ for such a purpose, as it can work with a less intense current than the magnetic telegraph. It is our opinion, however, that during wet weather, and when the atmosphere is charged with moisture, that it will be very difficult to work such a telegraph, owing to the large exposed surfaces of the main conductor—the rails.

Squashes and Pumpkins.

Dr. Harris, of Harvard University, Mass., states, that contrary to opinions hitherto held, he believes that the above named vegetable productions are natives of the soil, and are not of Asiatic origin, as has been hitherto supposed. He states they were unknown in Europe prior to the discovery of America, and that early voyagers found them in New England, where they were cultivated by the Indians. Who has ever seen them growing wild?