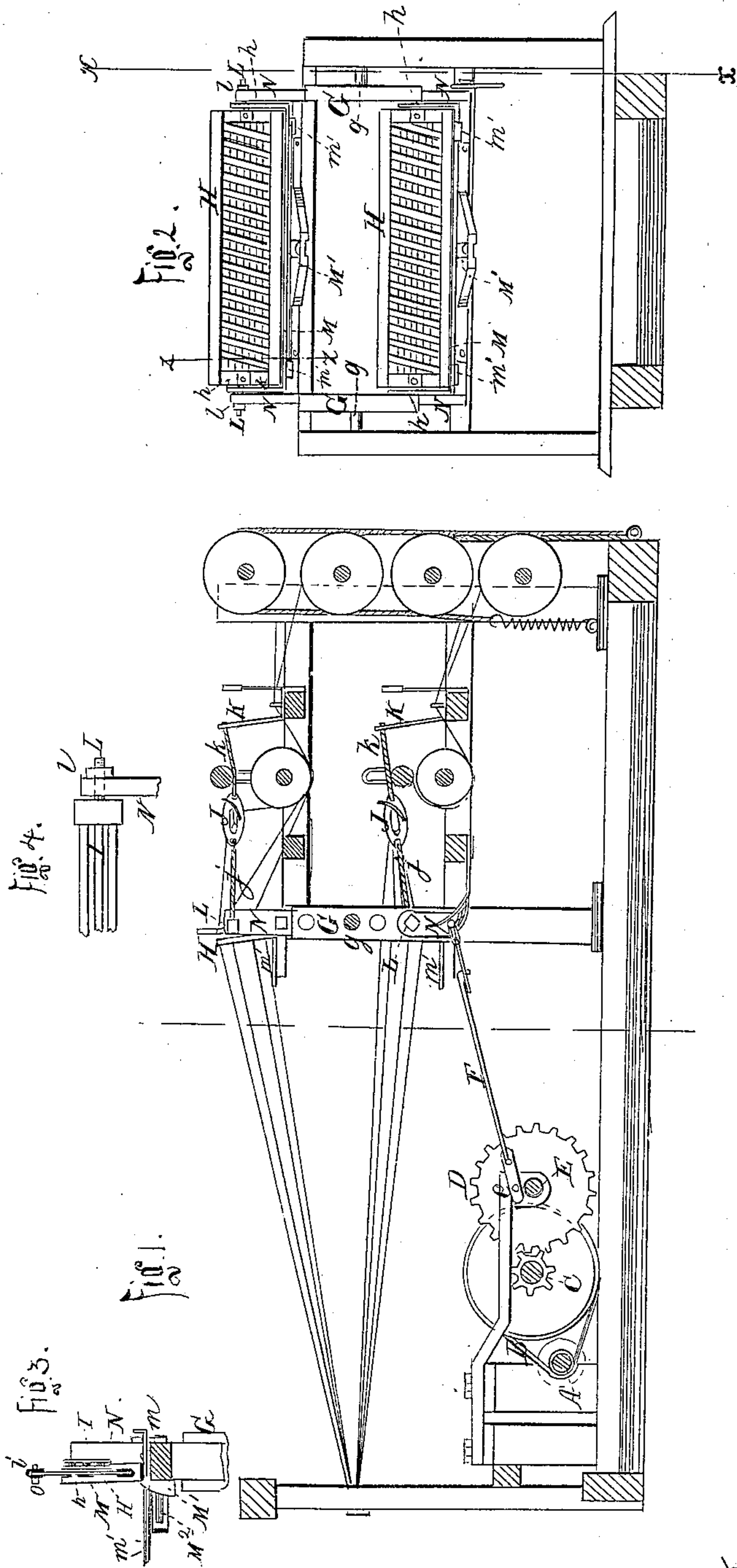


W. H. Boyden,
Dresser Copier.

No. 92,784.

Patented July. 20. 1869.



Witnesses:

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WILLIAM H. BOYDEN, OF ROCKLAND, RHODE ISLAND.

Letters Patent No. 92,784, dated July 20, 1869.

IMPROVEMENT IN MACHINES FOR DRESSING WARP-THREADS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM H. BOYDEN, of Rockland, in the county of Providence, and State of Rhode Island, have invented a new and improved Cotton-Warp Dresser; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section through line *x x* of fig. 1.

Figure 2 is a transverse section through line *y y* of fig. 1.

Figure 3 is a transverse section through line *z z*, fig. 2.

Figure 4 is a sectional view, showing the fastening of bars I.

In this invention, the racks and bars are constructed and hung differently from anything of the kind in use heretofore, in order that they may be more readily and conveniently cleaned, when necessary; and a motion is given to the racks, bars, and rods, from mechanism entirely independent of that which moves the thread, in order that, when the thread stops, the other parts referred to may keep in motion, and thereby the sizing of the thread may be prevented from adhering to them.

In the drawings, fig. 1 represents the middle and right end of a dresser, the threads being shown in red lines.

A is a shaft, receiving motion from the fan-shaft, entirely independent of the motive-power which operates the thread, and communicating such motion, through a belt and pulley, B, to a shaft, C, from which it is again communicated, by gearing D, to a shaft, E.

To the end of the latter is fixed a crank, eccentric, or other device, *e*, for converting the circular motion into a vibrating motion.

A pitman, F, then communicates such motion to a swinging frame, G, which supports the racks H and bars I, being itself pivoted on trunnions *g g*, at or near its centre, so that when the shaft A is put in motion, the frame G is thereby rocked, and the racks and bars are caused to vibrate back and forth in contact with the thread, and lengthwise of the same.

It is evident, that if the motion of the thread, or that of all the other machinery cease, the racks and bars may be kept in motion, and the sizing of the thread be prevented from adhering to them.

By connecting the rods J to them, by means of cords *j j*, and applying weights or springs K and cords *k* on the other side, the same backward-and-forward motion may be communicated to the rods, and for the same purpose.

The racks and bars are attached to the frame G independently of each other, the frame of the bars

being attached directly to the side-pieces of frame G, by means of a bolt, L, and clamping-screw nut *l*, so that by loosening the nut, the bar-frame, with the bars, may be turned over on its side, for the purpose of being cleaned more conveniently.

The rack H is hung on trunnions *h h*, in a bent supporting-bar, M, which rests, at its centre, on a block, M¹, which slides back and forth, toward and from the bars I, upon an arm, M², and can be latched in place, as seen in fig. 3, by means of a hasp or catch, *m*.

Two arms *m' m'*, in addition to the central arm M², are provided, to support the weight of the rack, and steady it, when it is slid toward the centre of the machine.

Whenever it is desired to clean the rack, the hasp *m* is to be unlatched, and the supporting-bar M slid to the left, as shown in fig. 3. This will separate the rack from the bars I, and allow the former to be turned down on its side, so that it can readily and easily be cleaned.

The construction of the rack is somewhat different from those heretofore in use, the top piece *i* being removable, so that the threads can all be lifted out without the necessity of cutting or breaking them.

The top piece is simply a flat plate of metal, doubled, along its centre, over the upper ends of the inclined slats, so as to hold them in position, and itself confined in place by means of screws *o*, or other convenient fastening.

Both the racks and bars are supported in sliding pieces N, working in grooves in the frame G, so as to be adjustable toward or from the trunnions *g g*, in order to increase or diminish, at pleasure, the distance between the upper and lower ones.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The racks H, bars I, and rod J, or any of them, when receiving a reciprocating movement from a power independent of that which works the thread, substantially as and for the purpose specified.

2. The combination of the rocking frame G with the racks H, bars I, rods J, cords *j k*, and springs or weights K, substantially as and for the purpose set forth.

3. The racks H and bars I, hung in the manner described, so that they can be slid apart, to allow them, or either of them, to be turned down on their side, substantially as described, and for the purposes specified.

4. The racks H, constructed with a removable top piece, *i*, substantially as and for the purposes set forth.

WILLIAM H. BOYDEN.

Witnesses:

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