H. M. STOW.

Sawing-Machines.

No. 140,657. Patented July 8, 1873.

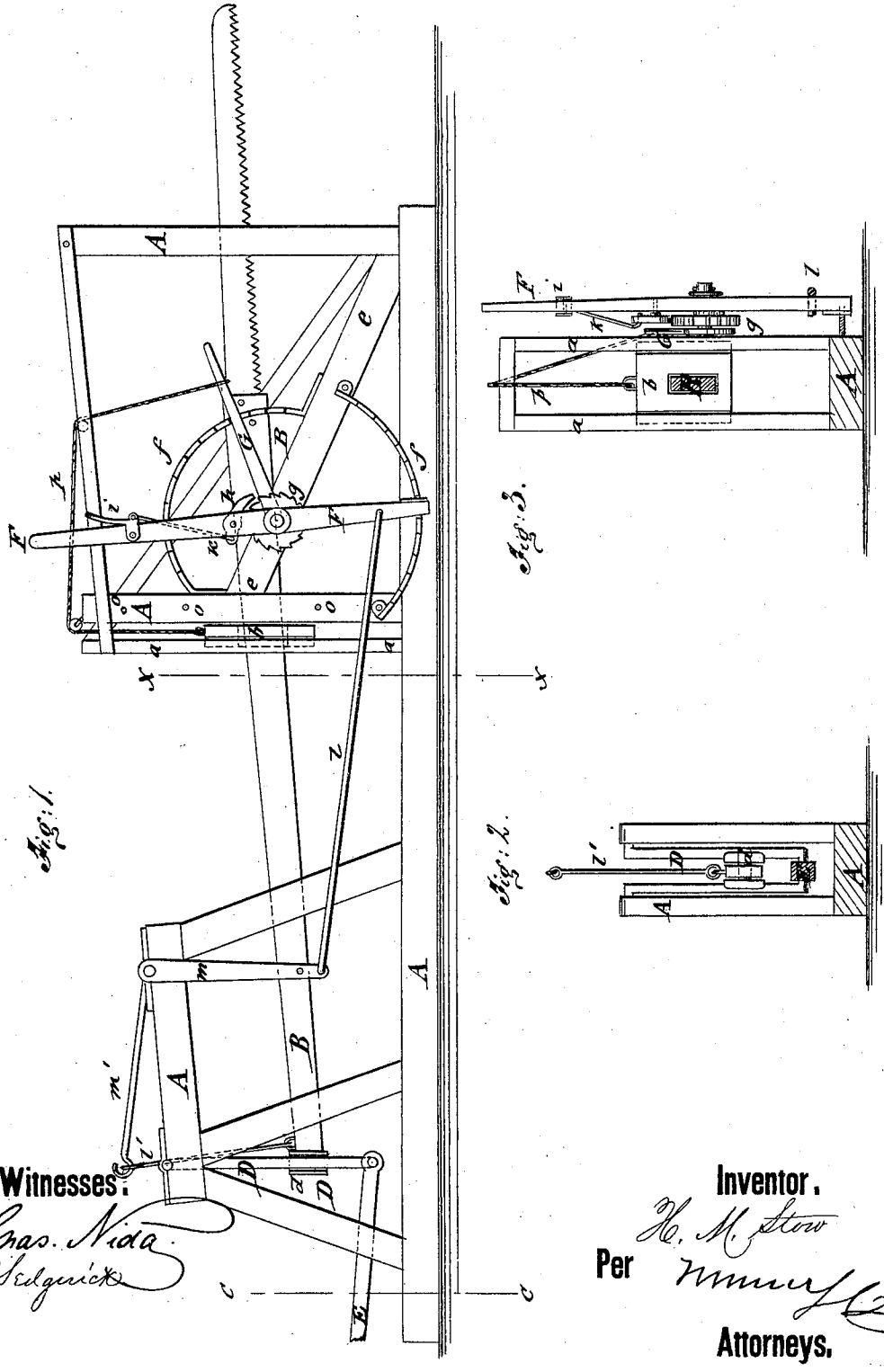

Fig. 1.

Fig. 3.

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

HARRY M. STOW, OF MILAN, OHIO.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. **140,657**, dated July 8, 1873; application filed April 26, 1873.

To all whom it may concern:

Be it known that I, HARRY M. STOW, of Milan, in the county of Erie and State of Ohio, have invented a new Improvement in Sawing-Machines, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved saw-guide; Fig. 2, a vertical transverse section of the same on line *c c*, Fig. 1, showing stirrup and sliding chair at end of saw-shaft; and Fig. 3 is a vertical transverse section on the line *x x*, Fig. 1, showing sliding chair of front end of saw-shaft.

Similar letters of reference indicate corresponding parts.

The object of my invention is so to improve the construction of the saw-guide that the stroke of the saw may be rapidly changed and adapted to the requirements of the cutting operations. The increase and decrease of the stroke is produced by simple means, and easily regulated. My invention consists of lever connections, acting on the front and pitman end of the saw-shaft, to be operated simultaneously or separately, as desired.

In the drawing, A represents the frame for guiding the saw-bar B. Vertical guides *a*, of front part of frame A, carry the chair *b*, in which the front end of saw-bar B moves. To the rear part of frame A is pivoted the stirrup D, which connects, by pitman E, with the driving-wheel. The rear end of saw-bar B slides vertically, by means of chair *d*, on the side bars of stirrup D. The front part of frame A supports, in connection with the inclined side piece *e*, two ratchet-segments, *f*, placed sidewise to it, one above piece *e*, the other below the same. Two hand-levers, F and G, are pivoted to piece *e*, and centrally to segments *f*. The lower lever G is connected firmly to a ratchet-wheel, *g*, into which a pawl, *h*, locks, which is applied to lever F by handle *i* and spring connection *k*. By grasping handles F and *i* the pawl *h* locks into ratchet *g*, and imparts thereby simultaneous motion to lever G. If the pawl *h* is not locked both levers F and G may be used separately. The lower end of lever F is connected, by rods *l*, to one arm of bell-crank *m*, which is pivoted to rear frame A. The other arm *m'* connects, by rod *l'*, to sliding chair *d*. The forward motion of lever F elevates thereby the rear end of saw-bar B; the backward motion lowers the same. Stops O of frame A limit the extent of motion of lever F. The shorter lever G connects, by a suitable rope, *p*, to the top of front sliding chair *b*, and regulates the elevation or lowering of the front end of saw-bar B. Levers F and G lock, by suitable projections, into ratchet-segments *f*, and secure thereby the exact retention of their positions, and that of saw-bar B. Both ends of B may, by means of levers F and G, be lifted and lowered, either both at the same time or independently of each other, and the saw thereby directed, as required, in cutting the logs or other objects.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The saw-bar B, having sliding front and stirrup chairs *b* and *d*, as described.

2. The combination of levers F G with saw-bar B, by rods *l l'*, arms *m m'*, and rope *p*, substantially as described.

HARRY M. STOW.

Witnesses:

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