E. Smith,

Sawing Shingles,

No. 35,266, Patented May 13, 1862.

Fig. 1.

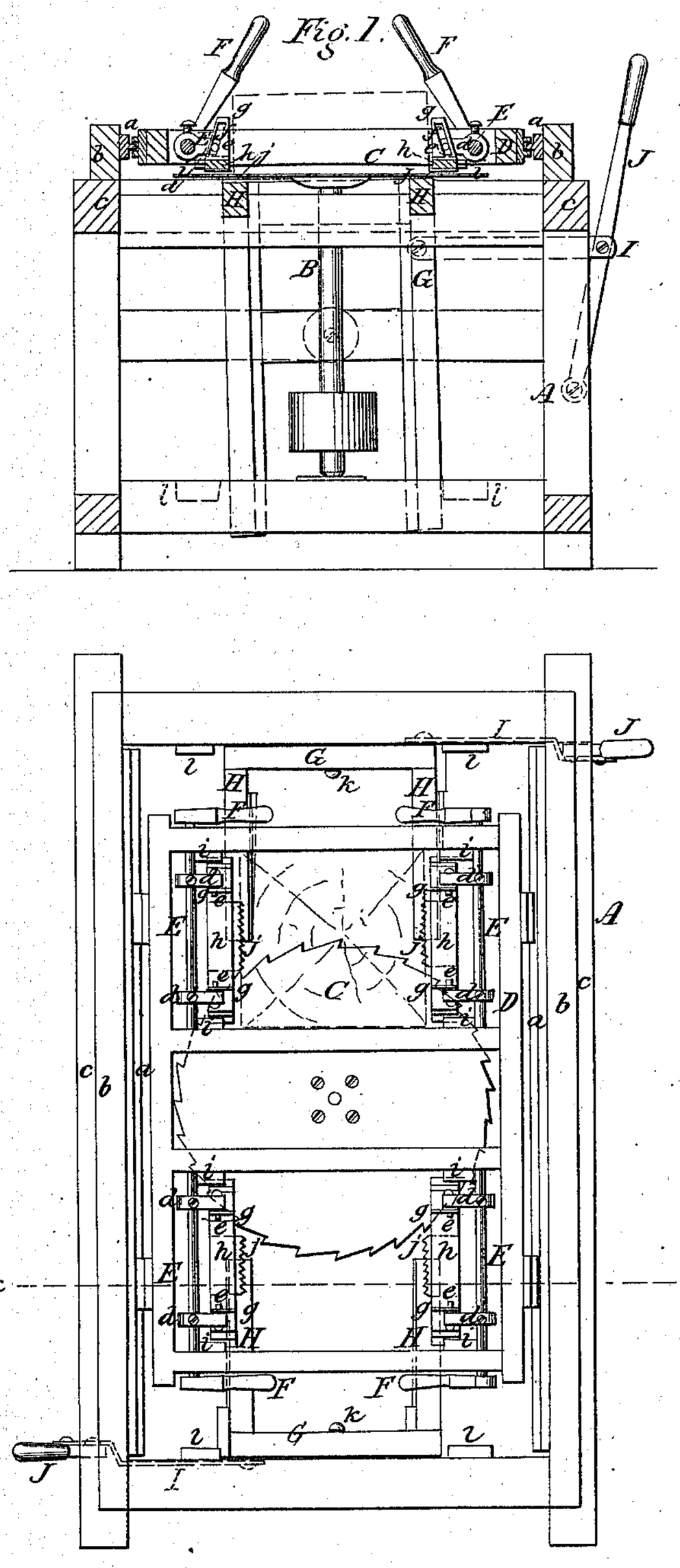

Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

EMERSON SMITH, OF NEW HAVEN MILLS, VERMONT.

IMPROVEMENT IN SHINGLE-MACHINES.

Specification forming part of Letters Patent No. **35,266**, dated May 13, 1862.

To all whom it may concern:

Be it known that I, EMERSON SMITH, of New Haven Mills, in the county of Addison and State of Vermont, have invented a new and Improved Shingle-Machine; and I do hereby declare that the following is a full clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a transverse vertical section of my invention, taken in the line *x x*, Fig. 2. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a shingle-machine of that class in which a circular saw is employed for cutting the shingles from the bolt.

The object of the invention is to obtain a machine which may be operated by two persons in such a manner as to insure the work being rapidly performed and in a perfect manner, the great loss occasioned by the imperfect shingles produced by the automatic shingle-machines being avoided and a much simpler device obtained.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular framing which may be constructed in any proper way to support the working parts; and B is a vertical shaft which is placed centrally in the frame A and has a circnlar saw, C, attached to its upper end.

In the upper part of the framing A there is placed a horizontal rectangular frame, D. This frame D is a sliding one, and it is fitted on or between guides *a a*, which are at the inner sides of parallel bars *b b*, secured to the upper side pieces, *c c*, of the framing A. The frame D works directly over the saw C, and said frame D is provided at each end with two longitudinal parallel shafts, E E, one at each side. The shafts E have each two arms, *d d*, attached. These arms project inward or toward the center of the frame, and each is provided with a pin, *e*, projecting from it at right angles. The pins *e* of the arms *d d* of each shaft E fit in oblique slots *f f*, which are made in vertical plates *g g*, attached to a slide, *h*, which is fitted in guides *i' i'*, attached to frame D. Each slide *h* has a serrated plate, *j*, attached to it, which forms a jaw, the two jaws at each end of the frame D being parallel with each other, as shown clearly in Fig. 2. The shafts E are turned, when necessary, by means of levers F at their outer ends.

Within the framing A at each end there is secured by a pivot, *k*, an upright frame, G. To the upper part of these frames G there are attached brackets H H, the upper surfaces of which at certain times form ways or rests for the bolt from which the shingles are cut. Each frame G is connected by a rod, I, with a lever, J, by means of which the frames and consequently the brackets may be tilted. This tilting movement of the frames G is controlled so far as distance is concerned by stops *l* at the lower part of the framing A.

The operation of the machine is as follows: There are two bolts secured in the frame D, one between each pair of jaws *j j*. The shaft B is rotated by any convenient power, and the frame D is shoved back and forth by hand, an operator being at each end of the framing A. A shingle is cut alternately from the two bolts, and at the termination of each stroke of the frame D the bolt which arrives over its brackets or ways is released from its jaws *j* by raising the levers F, and thereby turning the shafts E, the pins *e* of the arms *d* throwing outward the slides *h* and jaws *j* in consequence of being fitted in the oblique slots *f* of the upright plates *g*. When the bolt falls on its ways or brackets H H, the operator tilts the frame G of the brackets or ways on which the released bolt rests, and the latter has an oblique position given it directly the reverse of what it had before. By this arrangement the shingles are cut from the bolts in proper taper form, the bolts being grasped by the jaws *j* as soon as they are set. The operators, it will be seen, have not much labor to perform. The jaws *j* may be very readily manipulated, so as to release and grasp the bolt, and the frame D may be operated with but a moderate expenditure of

power, the shingles as they are cut or sawed being thrown from the machine by the operator.

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

The particular manner of operating or adjusting the jaws *j*, to wit, by means of the pins *e*, attached to arms *d* on the shafts E, and fitted in oblique slots *f* in the upright plates *g* of the slide *h*, to which the jaws *j* are secured.

EMERSON SMITH.

Witnesses:
SENECA SUMNER,
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