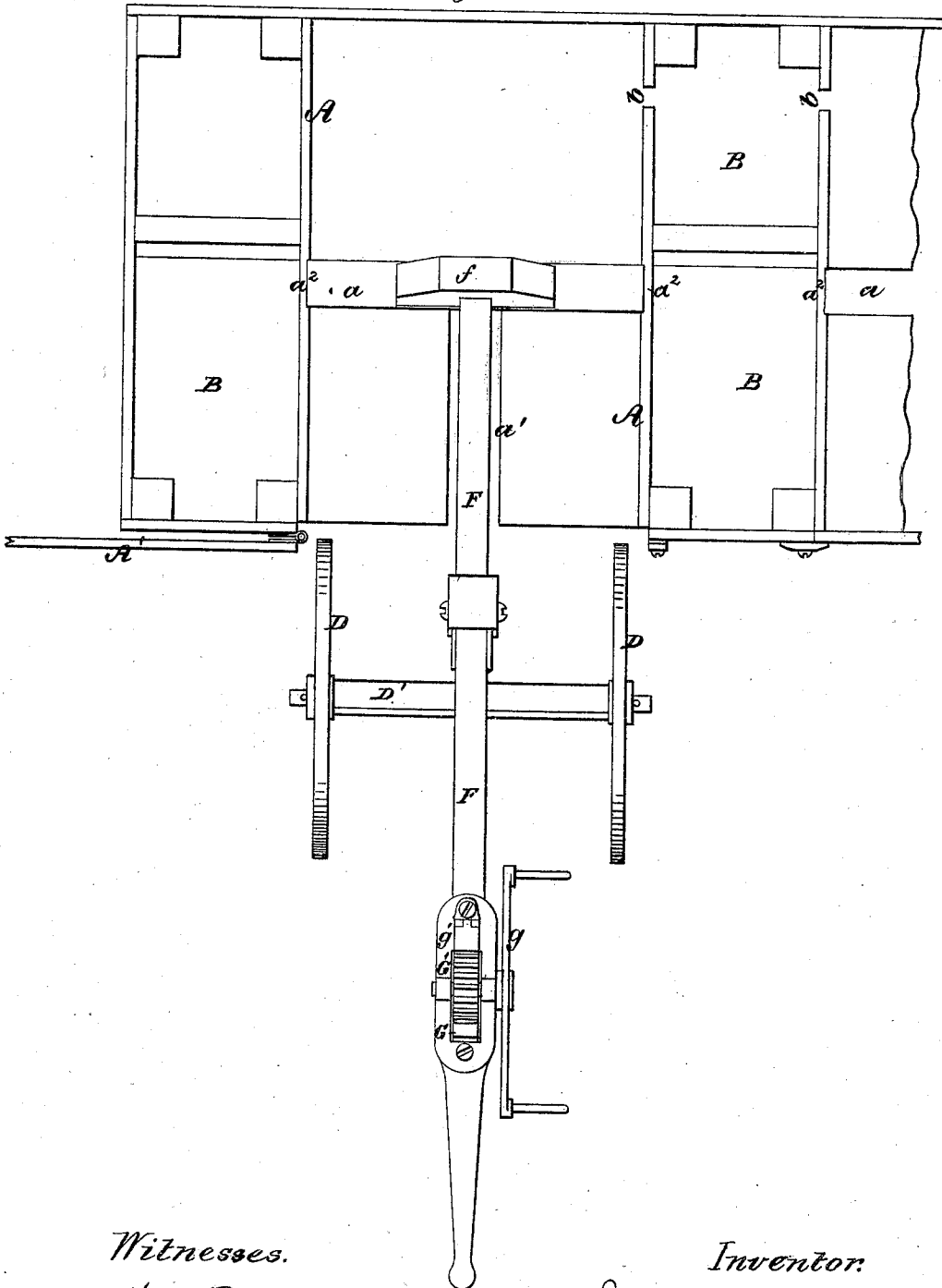


R. LAW.
Machines for Bundling Shingles.
 No. 134,753.

Patented Jan. 14, 1873.

Fig. 1.



Witnesses.

W. H. Rowe,
Joel Taylor.

Inventor.

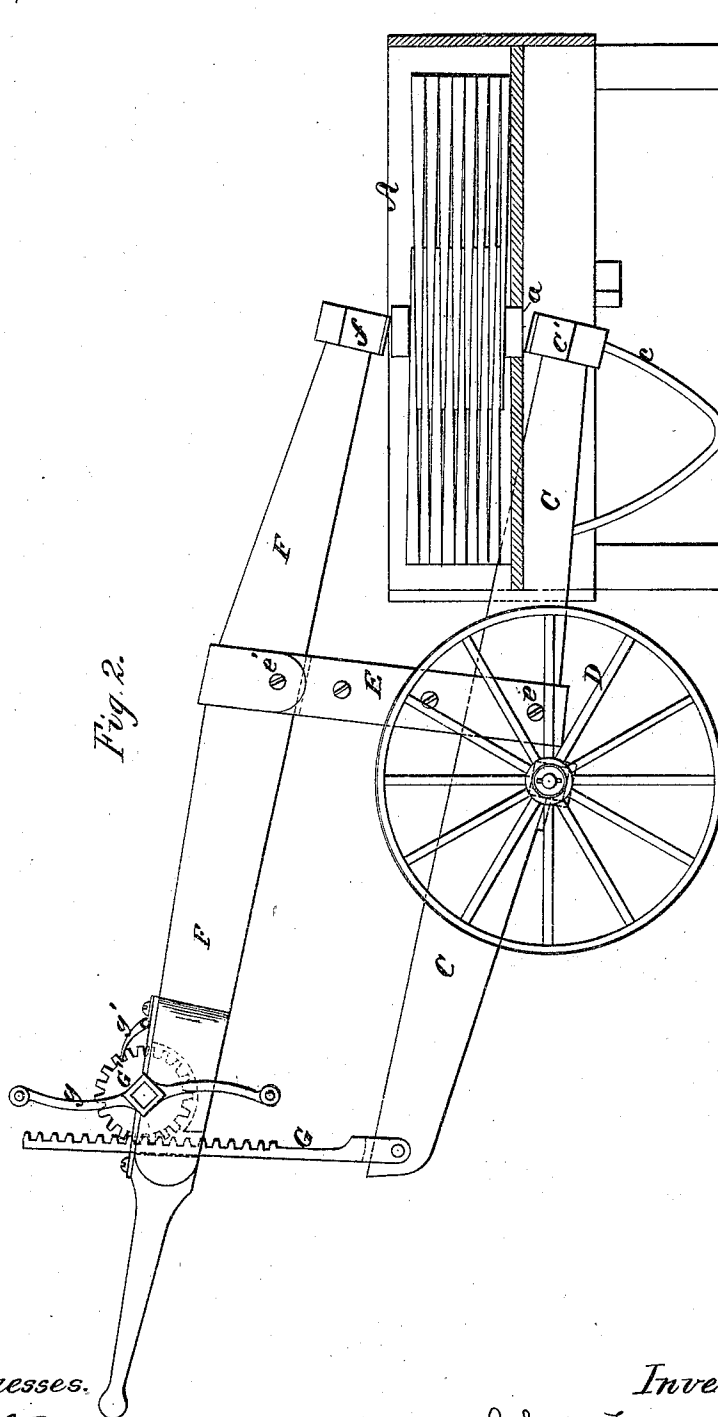
Robert Law
by his atty
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UNITED STATES PATENT OFFICE.

ROBERT LAW, OF TOLEDO, OHIO.

IMPROVEMENT IN MACHINES FOR BUNDLING SHINGLES.

Specification forming part of Letters Patent No. 134,753, dated January 14, 1873.

To all whom it may concern:

Be it known that I, ROBERT LAW, of Toledo, Ohio, have invented certain new and useful Improvements in Machines for Bundling Shingles, of which the following is a specification:

The object of my invention is rapidly to assort finished shingles into bundles of uniform and convenient size and number; firmly to compress these bundles; securely to bind them, and expeditiously to remove them out of the way when bound. The improvements by which these objects are effected are hereinafter clearly expressed.

In the accompanying drawing, Figure 1 shows a plan or top view of so much of an apparatus embodying all my improvements in the best form known to me as is necessary to illustrate my invention, and Fig. 2 a side elevation thereof with the packing-box in section.

I construct a box, A, with a compartment or compartments of a size sufficient to contain a bundle of shingles with their ends overlapped, as usual. I construct this box with a transverse slot, *a*, intersecting a longitudinal one, *a*¹, extending to the front of the box. The bands to bind the shingles lie in the slot *a* and in grooves *a*² in the sides of the box. The front of the box is closed by a door, A', but its top is open. I also form receptacles B at the sides of the compartment to receive shingles and bands preparatory to bundling. A frame or beam, C, mounted on wheels D and an axle D', carries at its front end a prop, *e*, to hold it up, and a jaw, C', on which the band rests, as hereinafter explained. A post, E, oscillating on a pivot, *e*, on the frame C, carries a clamping-arm, F, pivoted to it at *e'*, and having a clamp or jaw, *f*, similar to the lower one *e'* above mentioned, with which it corresponds in form and relation to the bundle. A rack, G, pivoted to the frame C, passes through a vertical slot in the arm F, on which a pin-

ion, G', is mounted. This pinion gears into the rack, is turned by a winch, *g*, and locked, when desired, by a pawl *g'*. An eccentric or other well-known clamping device might be substituted for this rack and pinion.

The bands intended to be used are composed of wooden top and bottom pieces, connected at their ends by hoop-iron straps; but other straps may be used.

In operation the bands are placed in the grooves *a*² and slot *a*. The shingles are laid in the box with their thin ends overlapping each other and this groove. The slot *b* in the box enables the packer readily to count the shingles. When the bundle is completed the band is laid over its top, the door is opened; the carriage is then run in until its jaws C' *f* clamp the bands above and below the bundle, which is compressed by working the pinion G', and held by the pawl *g'*. The bands are fastened by a nail driven through them, or in some other well-known way. The frame is now tilted until the bundle is clear of the box, when it is run off on its wheels, and the bundle dropped by releasing the clamp.

I claim as my invention—

1. A packing-box for binding shingles, having a bottom slotted both laterally and longitudinally and a removable side for the passage of the clamping and transporting mechanism, substantially as set forth.

2. A clamping-carriage for clamping and transporting shingles, operating substantially as set forth.

3. The combination of the clamping-jaws and compressing mechanism, substantially as set forth.

In testimony whereof I have hereunto subscribed my name.

ROBERT LAW.

Witnesses:

JOE I. PEYTON,
BALTIMORE, DE LONG.