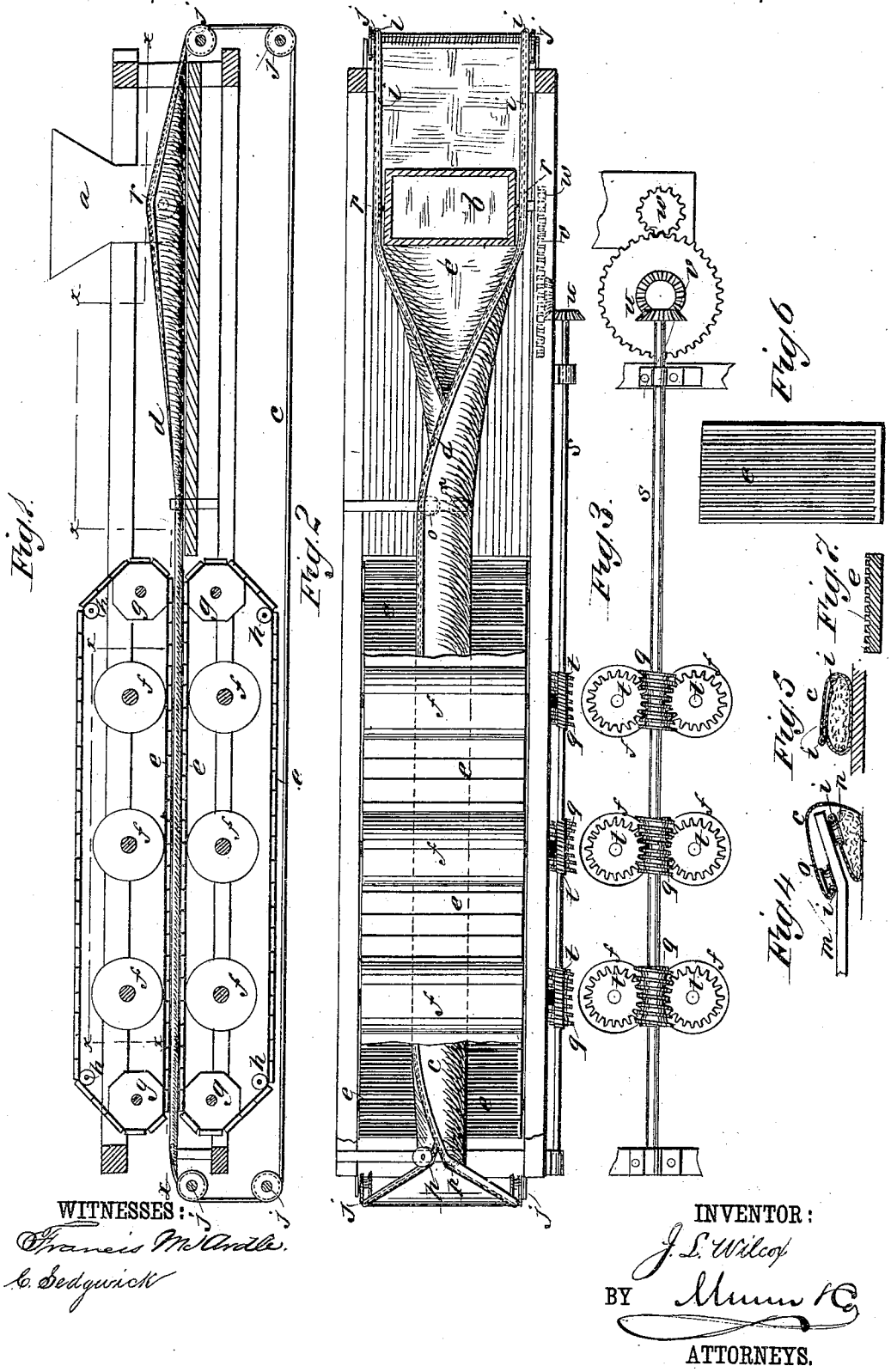
(No Model.)

J. L. WILCOX.

CIDER PRESS.

No. 271,387. Patented Jan. 30, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSHUA L. WILCOX, OF FLINT, MICHIGAN.

CIDER-PRESS.

SPECIFICATION forming part of Letters Patent No. 271,387, dated January 30, 1883.

Application filed October 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA L. WILCOX, of Flint, in the county of Genesee and State of Michigan, have invented a new and Improved Cider-Press, of which the following is a full, clear, and exact description.

My invention consists of improvements in endless bag and roller presses for conveying the pomace from the mill between pressing-rolls, the said improvements being in the contrivances for turning the endless web to inclose and retain the pomace while being acted upon by the rolls; also, in endless pressing-aprons, between which the bag passes through the rolls, and also in the drivers for operating the rolls, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of my improved cider-press. Fig. 2 is a plan view. Fig. 3 is a side elevation of the driving-gear. Figs. 4 and 5 are details of the bag and contrivances for folding it, and Figs. 6 and 7 are details of the endless pressing-aprons.

From the hopper *a* of the grinding-mill the pomace passes through the spout *b* upon the endless web *c*, of strong canvas or other material, in which it is inclosed in a sort of sack or bag by folding the edges over and wrapping them around the pomace, as shown at *d*, by which the sack of the said endless web is carried between the endless pressing-aprons *e*, composed of wood or other plates jointed together and running between the pressing-rolls *f*, said aprons passing over carriers *g* and guides *h*. In order to run the web *c* flatwise or open under the spout *b* to receive the pomace therefrom, and then fold the edges over to inclose the same, I cord the edges of the web with strong endless guide-cords *i*, and arrange grooved guide-rollers *j* suitably for the cords to run on from where the web issues from the pressing-aprons back to hopper, the said web being then in the outstretched or flatwise condition. On the sides of the spout, and suitably above the lower end to raise the edges of the web a proper amount preparatory to folding them over the pomace and cause the web to assume a trough-shaped form to receive the pomace and convey it toward the pressing-rolls, I locate the guide grooved rolls *r*, as shown, over which the corded edges of the web *c* pass; and a little in advance of where the folded and sack-formed web enters between the pressing-apron I arrange an arm, *m*, to project over the part of the sack containing the pomace and carrying a roller-guide, *n*, on its under side, along which the underlapping edge of the web runs, said roller being at or about the end of the arm, and on the upper side, and some distance back of the end of the arm, it carries another grooved guide-roll, *o*, over which the overlapping edge of the web passes to be overlapped and laid on the lower edge, as shown. The web thus folded over and inclosing the pomace passes between the aprons *e* to be pressed and issues at the other end of the same, where other guide-wheels *p* receive the corded edges of the web and deliver it to the first set of carrying-rollers *j* for the return to the mill in the outspread or flat form, as aforesaid. The plates of the endless pressing-aprons are grooved, as shown in Figs. 6 and 7, and will also in practice be perforated or slotted for the escape of the expressed juice. Said plates are connected together in the endless form by joints of suitable construction commonly used in devices of this kind.

For operating the pressing-rolls I gear them with a driving-shaft, *s*, by worms *q* and worm-wheels *t*, arranged between the rolls of each pair, and connect the shaft with the roller or cylinder of the grinding-mill by the bevel-pinions *u*, spur-wheel *v*, and pinion *w*, the power being applied to said cylinder in any approved way.

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

1. The combination of the guide-rolls *r*, located on the spout of the mill-hopper *a*, and the folding-rolls *n o*, located on the arm *m*, in advance of the pressing-rollers, with the endless web *c*, substantially as described.

2. The combination, with the rolls *f f*, of the two parallel aprons *e e*, arranged between said rolls, and the endless web *c*, passing between said aprons, as shown and described.

3. The endless pressing-aprons *e*, having

grooved pressing-surfaces, and being combined with the endless web *c*, and pressing-rolls *f*, substantially as described.

4. The endless web *c*, having the edge-cords *i*, in combination with the hopper *a*, grooved guiding and folding rolls *j*, *r*, *n*, *o*, and *p*, and with the pressing rollers and aprons, substantially as described.

5. The combination of the pressing-rolls *f*, worm-wheels *t*, worms *q*, shaft *s*, and wheels *u v w*, the wheel *w* being mounted on the shaft of the grinding-cylinder, substantially as described.

JOSHUA L. WILCOX.

Witnesses:
JARED VAN VLEET,
THOS. H. NESBITT.