

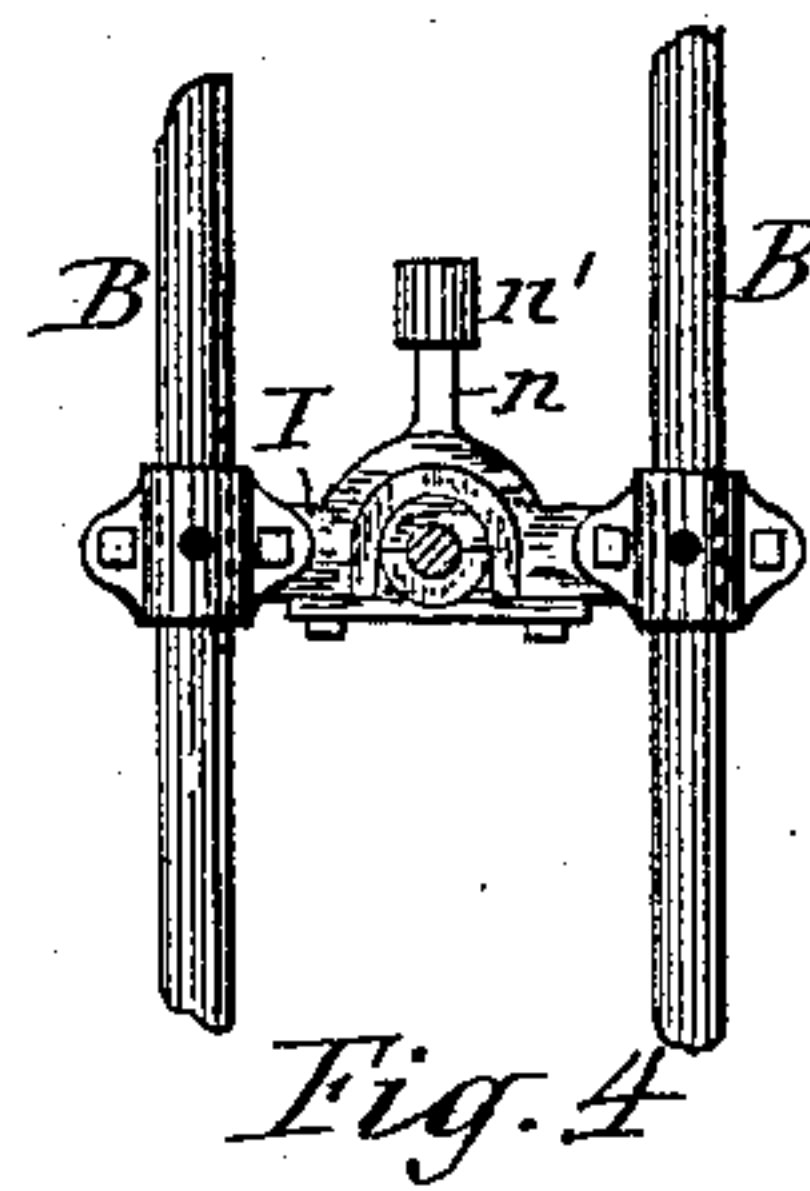
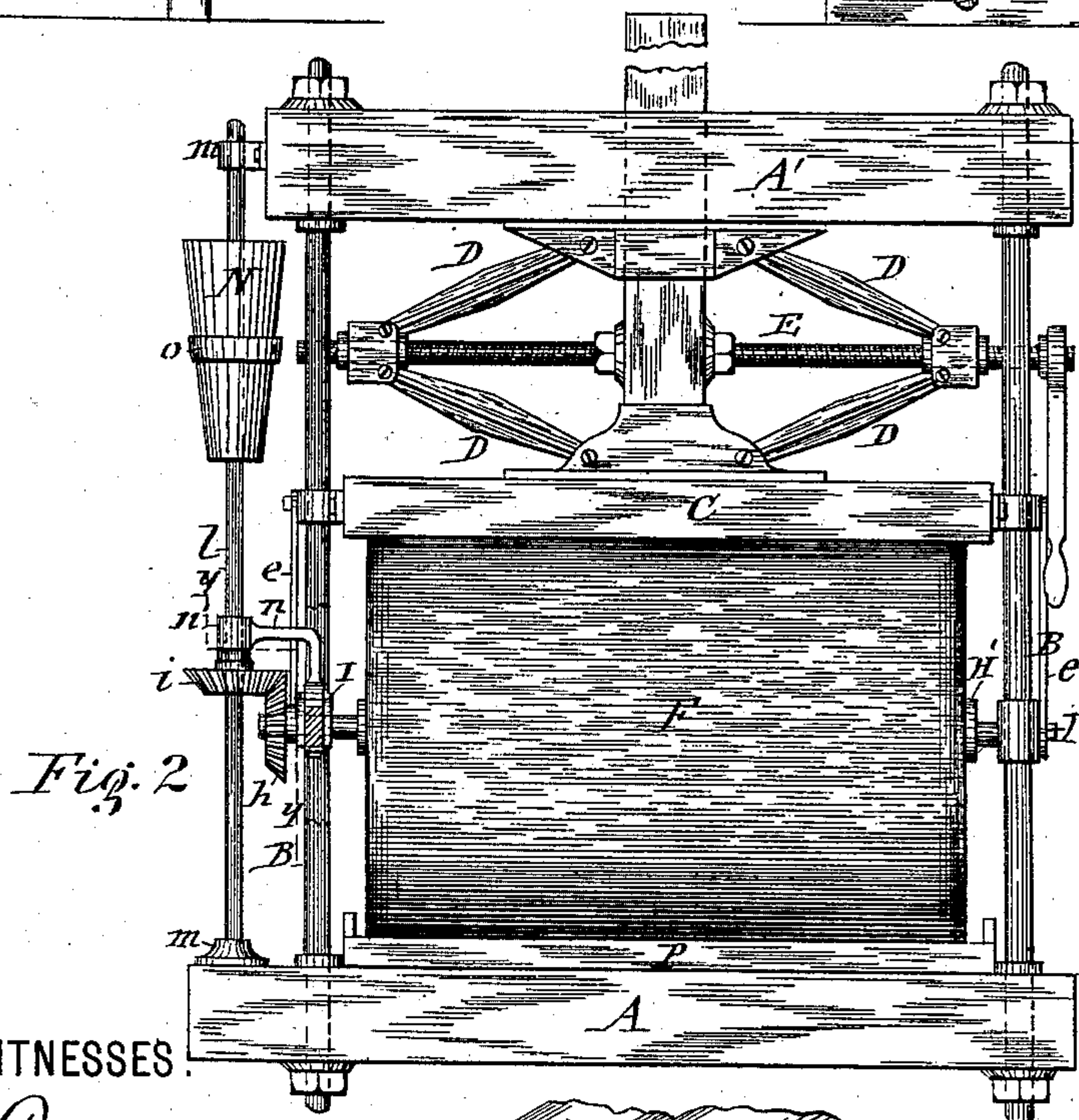
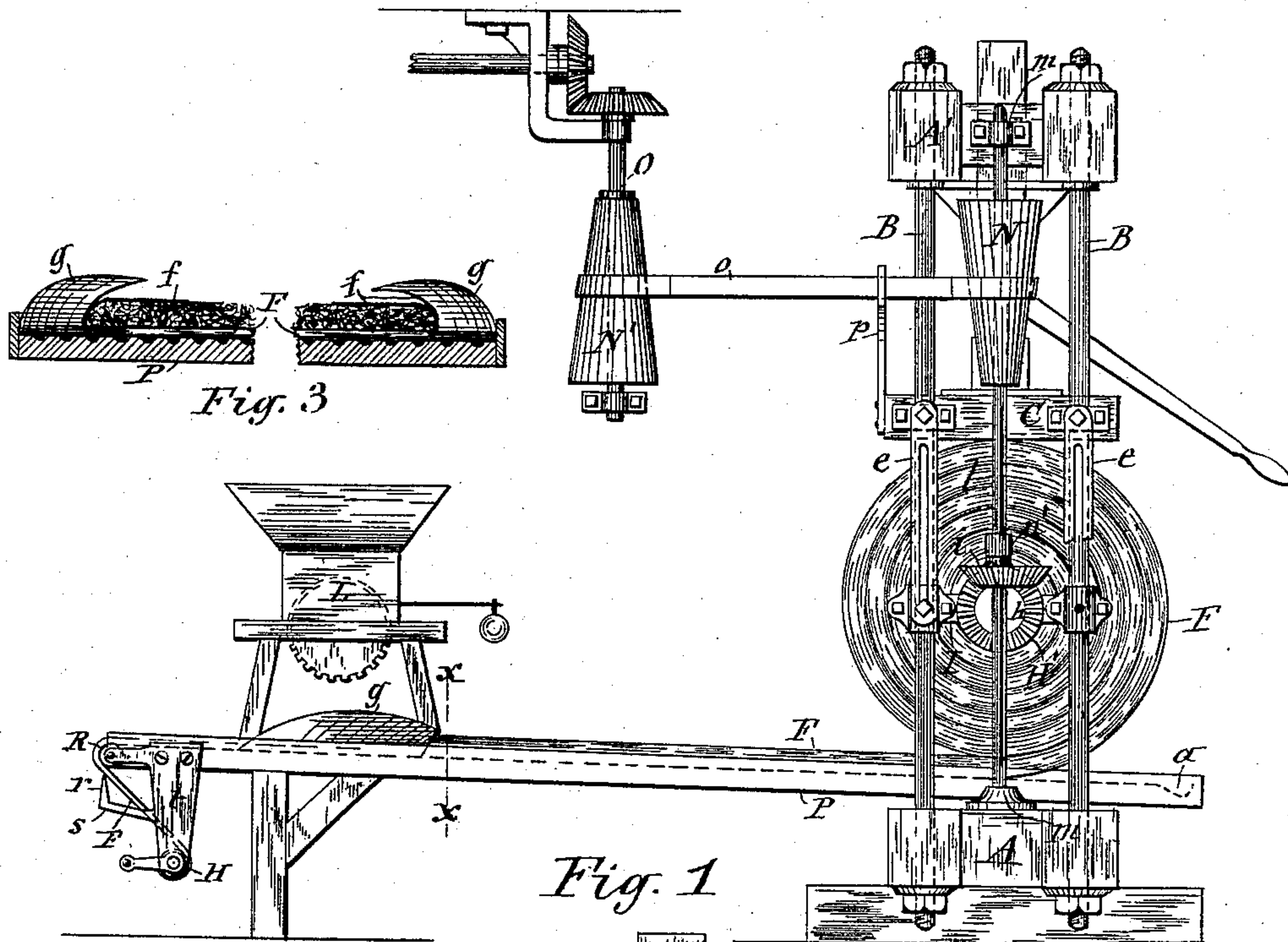
(No Model.)

S. E. TOOLEY.

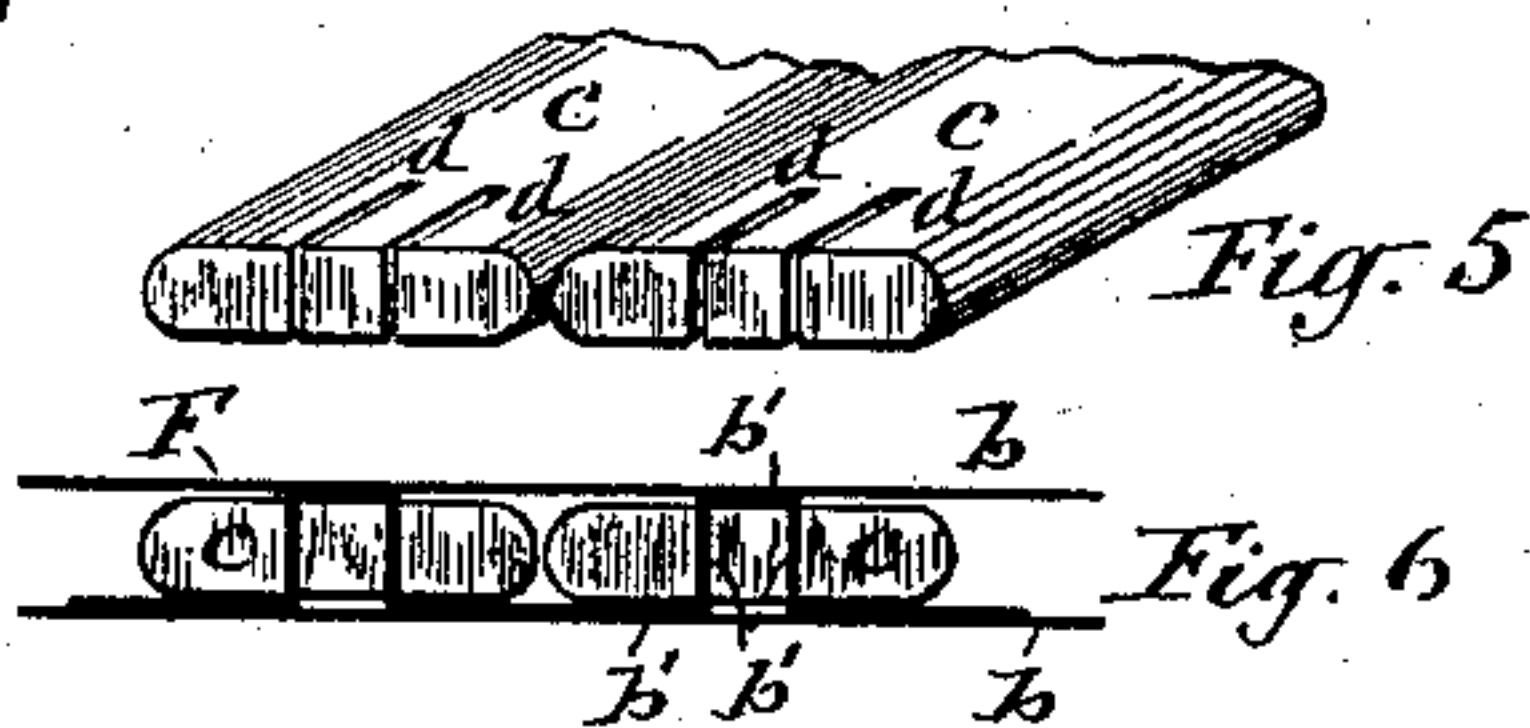
POMACE LAYING ATTACHMENT FOR WINE OR CIDER PRESSES.

No. 372,048.

Patented Oct. 25, 1887.



WITNESSES.
C. Bendixon
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UNITED STATES PATENT OFFICE.

SAMUEL E. TOOLEY, OF CAZENOVIA, ASSIGNOR OF ONE-HALF TO THE BOOMER & BOSCHERT PRESS COMPANY, OF SYRACUSE, NEW YORK.

POMACE-LAYING ATTACHMENT FOR WINE OR CIDER PRESSES.

SPECIFICATION forming part of Letters Patent No. 372,048, dated October 25, 1887.

Application filed May 5, 1887. Serial No. 237,178. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. TOOLEY, of Cazenovia, in the county of Madison, in the State of New York, have invented new and
5 useful Improvements in Pomace-Laying Attachments for Wine or Cider Presses, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention consists in a novel construction of a machine designed to lay, in an expeditious and convenient manner, pomace in successive layers under a press preparatory to expressing the liquid from said pomace, as
15 hereinafter fully described, and specifically set forth in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a pomace-laying apparatus embodying my invention. Fig. 2 is an end
20 elevation of the same. Fig. 3 is a transverse section on line *x x*, Fig. 1. Fig. 4 is a vertical transverse section on line *y y*, Fig. 2. Fig. 5 is a detail view of the construction of the ends of the belt-slats, and Fig. 6 is a longitudinal
25 sectional view of a portion of the pomace-carrying belt, showing the attachment of the wooden slats to the top and bottom layers of textile fabric or canvas.

Similar letters of reference indicate corresponding parts.

30 A and A' represent, respectively, the foot-block or press-bed and head-block of a wine or cider press. B B denote the tie-rods which connect the aforesaid parts to each other, and
35 C represents the follower which applies the pressure to the substance interposed between it and the press-bed A. The power for operating the follower may be derived either from toggles D D, operated by a right-and-left screw,
40 E, as shown, or by any other suitable and well-known mechanism.

From the press-bed A is extended a platform, P, preferably supported inclined toward the press, as shown in Fig. 2 of the drawings,
45 and provided with upward-projecting flanges along its longitudinal edges and across its lower end, and with a gutter, *a*, across said end.

F represents a prolonged belt, composed of
50 bottom and top sheets, *b b*, of canvas or other

suitable textile fabric, and wooden slats *c c*, arranged parallel side by side between the sheets *b b* and crosswise the belt, and secured thereto, preferably, by straps *b'*, passing through longitudinal slots *d d* in the ends of the slats and
55 secured to the canvas sheets, as shown in Fig. 6 of the drawings. This belt is drawn lengthwise over the top of the platform P by means of rotatable shafts or drums H and H', one of which is arranged crosswise beneath the end
60 of the platform farthest from the press, and journaled in hangers suspended from the platform and provided with a crank by which to turn it. The other drum, H', is arranged between the follower C and press-bed A, and is
65 journaled at its ends in boxes carried in bars I, which loosely embrace the tie-rods B B and are guided vertically thereon. The bars I I are carried by the follower C by hangers *e e*,
70 suspended from the latter and slotted longitudinally through their central and main portions, and through the slots thereof pass the bolts by which the hangers are connected to the aforesaid bars.

The bare belt F is wound up on the drum
75 H, and from thence passes to the drum H', upon which it is wound in opposite directions from the winding thereof on the drum H, and thus as the belt is wound upon one drum it is paid out or unwound from the other drum.
80 Over the platform P is arranged either a grater, L, as shown in Fig. 1 of the drawings, or a chute leading from a grater to the belt F, lying upon the platform, to deliver the pomace to the belt.

85 The slats *c c* extend only part way the width of the belt F, leaving pliable longitudinal flaps *f f* along the two sides of the belt, and these flaps are folded inward upon the pomace by inward overhanging longitudinal plates *g g*,
90 secured to the platform at opposite edges of the belt.

The pomace-laden belt is wound upon the drum H', which is raised to accommodate it to the increasing diameter thereof, by operating
95 the press so as to raise the follower, which, by means of the hangers *e e*, lifts the journal-carrying bars I I. The aforesaid winding up of the pomace-laden belt may be done intermittently, and during the intervals of its rest the
100

press may be operated to apply pressure to the pomace inclosed in the wound-up belt. I prefer to wind up the pomace-laden belt by means of a bevel gear, *h*, secured to the shaft of the drum *H* and meshing in a bevel-gear, *i*, which is connected to a vertical shaft, *l*, stepped in sockets *m m*, secured to the press-bed and head-block of the press. The gear-wheel *i* is connected with the shaft *l* by spline and groove, which allows the said wheel to slide vertically and compels it to rotate with the shaft. The wheel *i* is maintained in gear with the wheel *h* by an arm, *n*, projecting from the bar *I* and terminating with a sleeve, *n'*, immediately above the hub of the wheel *i*, through which sleeve the shaft *l* passes. To the upper end of this shaft is secured a cone-pulley, *N*, placed with its large end upward, and to a power-transmitting shaft, *O*, is secured another cone-pulley, *N'*, placed reverse or with its large end downward, as shown in Fig. 1 of the drawings. Said cone-pulleys are connected with each other by a driving-belt, *o*, and to the follower is secured a belt-shifter, *p*, which shifts the said belt up and down automatically with the upward and downward movement of the follower.

By the described arrangement of the cone-pulleys and their connections the rotation of the drum *H* is slackened as the diameter thereof is increased by the pomace laden belt wound thereon.

After all the pomace has been subjected to the press the motion of the mechanism which operates the drum *H* is to be reversed and the belt to be drawn back and wound upon the drum or shaft *H*, and during this operation the belt is cleaned from the dry pomace by means of a scraper, *r*, which is extended across the inverted portion of the belt directly in front of the drum or shaft *H*, and sustained in its position by arms *s*, projecting from the brackets *t t*, on which the drum or shaft *H* is journaled. In order to facilitate the travel of the belt over the end of the platform, I extend along said end a roller, *R*, journaled at its ends in portions of the brackets *t*, as shown in Fig. 1 of the drawings.

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

1. A pomace-laying apparatus comprising a prolonged pomace-carrying belt, a platform for supporting said belt, and a winder arranged to wind the pomace laden belt into successive layers, as set forth.

2. A pomace-laying apparatus comprising a prolonged pomace-carrying belt, a platform for supporting said belt, a pomace-depositor over the belt, and a winder arranged to wind the pomace-laden belt into successive layers, substantially as set forth.

3. A pomace-laying apparatus comprising a prolonged pomace-carrying belt, a platform for supporting said belt, a pomace-depositor over said belt, inward overhanging longitudi-

nal plates at opposite edges of the belt to fold the same longitudinally, and a drum at the end of the platform adapted to wind thereon the pomace-laden belt, substantially as described and shown.

4. A pomace-laying apparatus comprising a platform, rotatable drums or shafts at opposite ends of said platform, and a belt wound at opposite ends in opposite directions on said drums or shafts, substantially as and for the purpose set forth.

5. A pomace-laying apparatus comprising a platform, rotatable drums or shafts at opposite ends of said platform, a belt wound at opposite ends in opposite directions on said drums or shafts, and a pomace-depositor over the belt between the drums or shafts, substantially as described and shown.

6. The combination, in a wine or cider press, of a platform extending from the press-bed, a rotatable drum arranged horizontally between the follower and platform, and a pomace-carrying belt on the platform and connected to the aforesaid drum, substantially as and for the purpose set forth.

7. The combination, in a wine or cider press, of a platform extending from the press-bed, vertically-guided journal-boxes arranged movably under the follower at opposite sides of the press, a drum journaled in said boxes, and a pomace-carrying belt on the platform and connected to the aforesaid drum, substantially as described and shown.

8. The combination, in a wine or cider press, of a platform extending from the press-bed, vertically-guided journal-boxes arranged movably under the follower at opposite sides of the press, a drum journaled in said boxes, a pomace-carrying belt on the platform and connected to the aforesaid drum, and a pomace-depositor over the belt, substantially as described and shown.

9. The combination, in a wine or cider press, of a platform extending from the press-bed, vertically-slotted hangers suspended from the follower, vertically-guided journal-boxes arranged movably at opposite sides of the press, connected with the hangers in the slots thereof, a drum journaled in said boxes, and a pomace-carrying belt connected to said drum, substantially as set forth and shown.

10. The combination, in a wine or cider press, of a platform extending from the press-bed, vertically-guided journal-boxes arranged movably at opposite sides of the press between the follower and platform, a drum journaled in said boxes, a gear on said drum, a vertical power-transmitting shaft, a gear on said shaft engaging the gear of the drum, and a pomace-carrying belt on the platform and connected at one end with the aforesaid drum, substantially as described and shown.

11. The combination, in a wine or cider press, of a platform extending from the press-bed, vertically-guided journal-box carriers arranged movably at opposite sides of the press

between the follower and platform, a drum jour-
naled in the boxes of said carriers, a bevel-gear
on said drum, hangers connecting the journal-
box carriers with the follower, a vertical shaft
5 extended across the end of one of the drum-
journals, a bevel-gear on the vertical shaft,
adapted to slide lengthwise thereon and locked
to rotate with the same, a power-transmitting
shaft arranged parallel with the aforesaid ver-
10 tical shaft, cone-pulleys placed reversed from
each other on the said shafts, a driving-belt
connecting said pulleys, and a belt-shifter con-
nected to the follower of the press, substantially
as described and shown.

15 12. In a wine or cider press, a pomace car-
rying belt, composed of sheets of textile fabric
and wooden slats arranged parallel side by side
across the belt, between the sheets of textile
fabric, and fastened thereto, substantially as
20 described and shown.

13. In combination with the platform P and
belt F, the drum or shaft H, arranged under
the platform, and the rollers R, extended across
the end of the platform, substantially as de-
scribed and shown. 25

14. In combination with the platform P and
belt F, the drum or shaft H, arranged under
the platform, the roller R, extended across the
end of the platform, and the scraper r, arranged
to bear on the inverted portion of the belt, sub- 30
stantially as described and shown.

In testimony whereof I have hereunto signed
my name and affixed my seal, in the presence of
two attesting witnesses, at Cazenovia, in the
county of Madison, in the State of New York, 35
this 26th day of April, 1887.

SAMUEL E. TOOLEY. [L. S.]

Witnesses:

WILLIAM H. WEBBER,
HIRAM D. MESSENGER.