

(No Model.)

2 Sheets—Sheet 1.

M. & C. HEINEKE.
STRAW STACKER.

No. 465,371.

Patented Dec. 15, 1891.

Fig. 1.

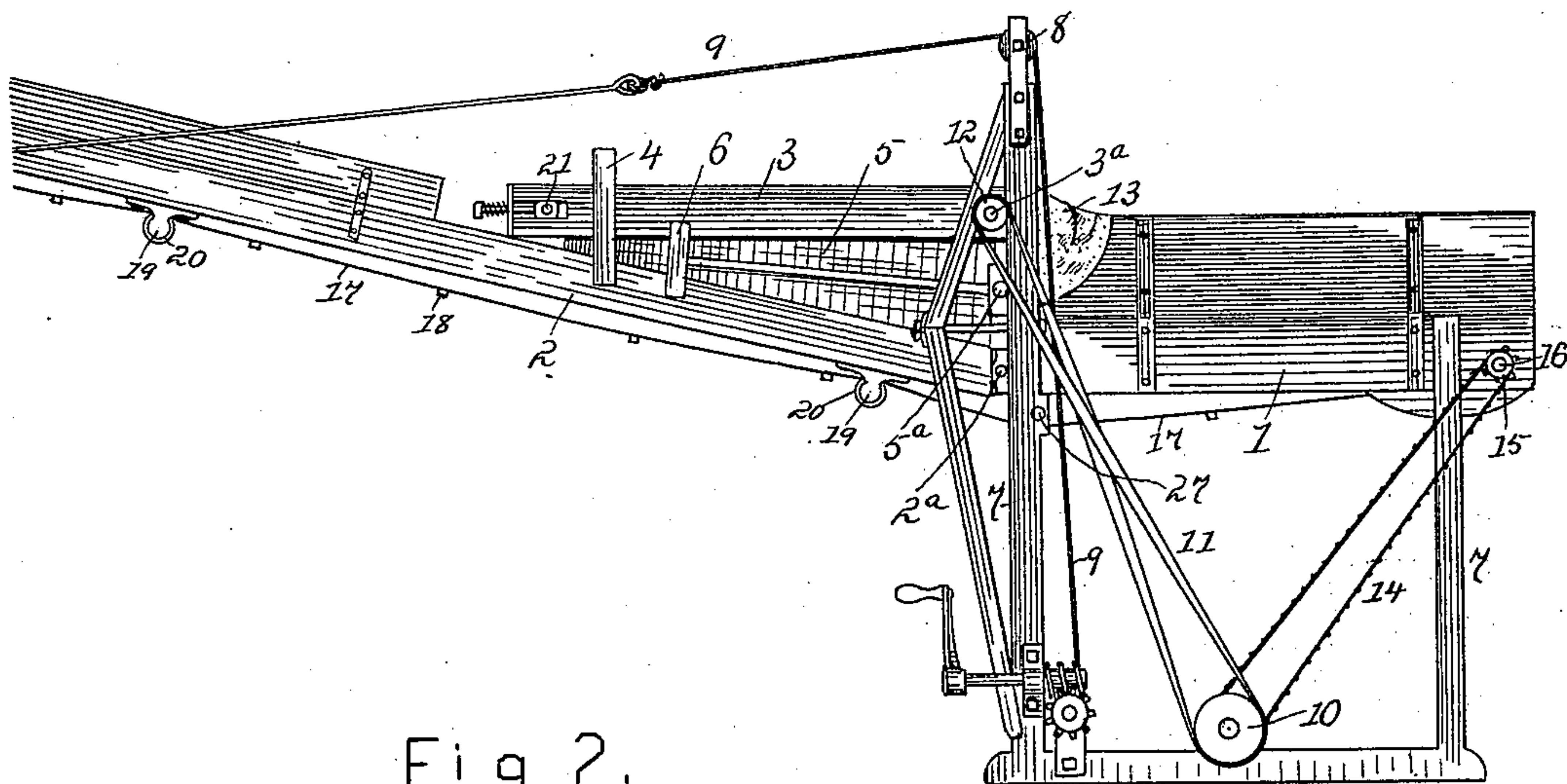
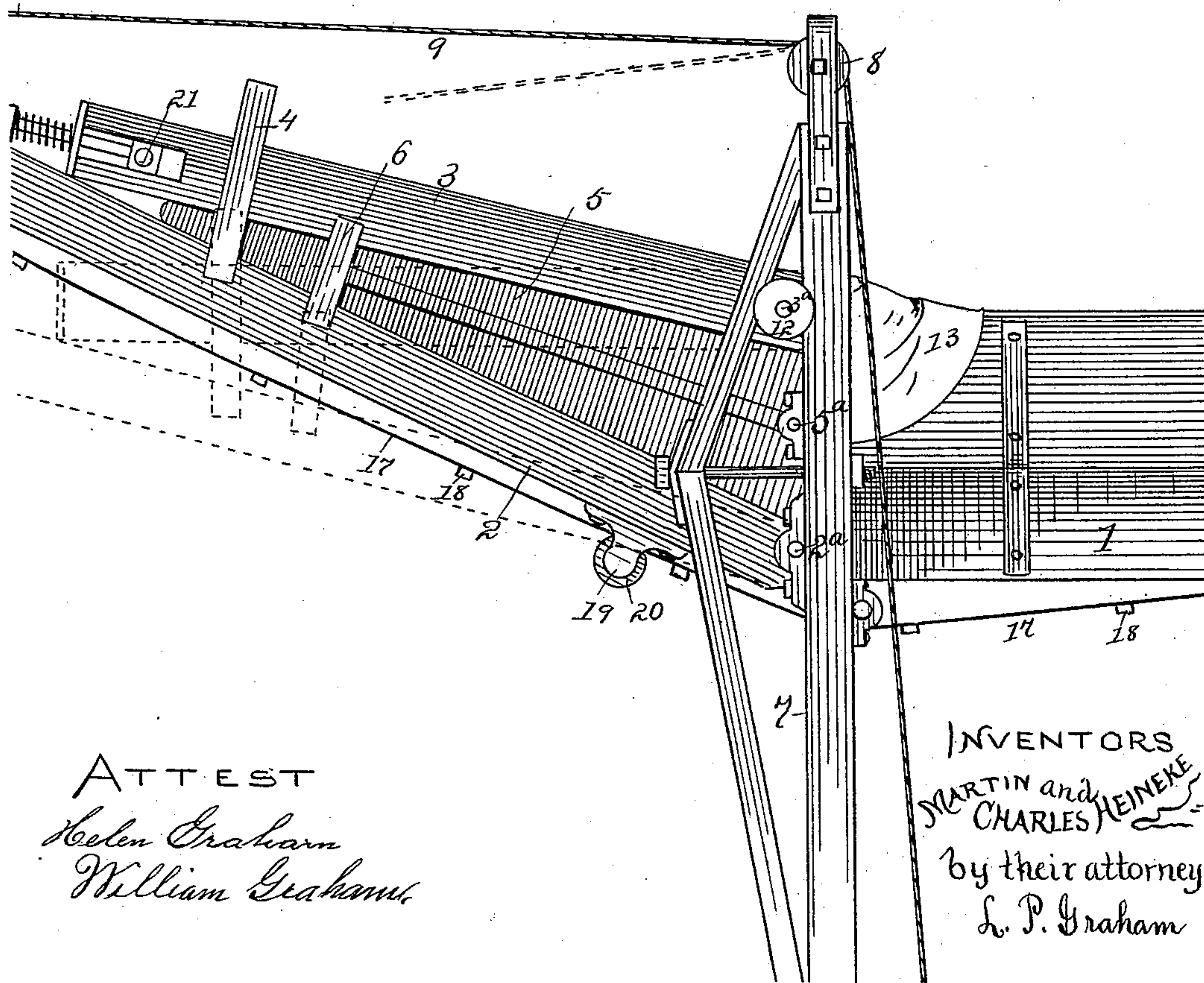


Fig 2.



ATTEST

Helen Graham
William Graham

INVENTORS
MARTIN and CHARLES HEINEKE
by their attorney
L. P. Graham

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Fig. 3.

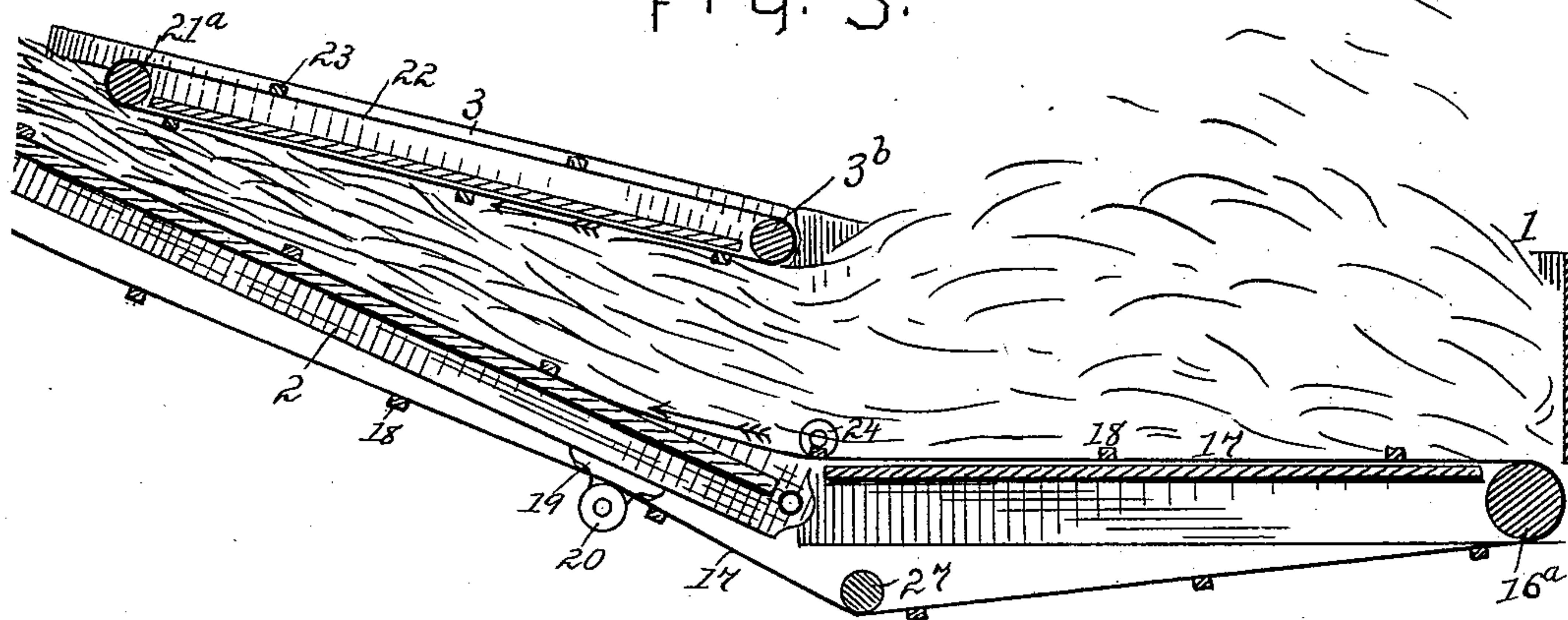


Fig. 4.

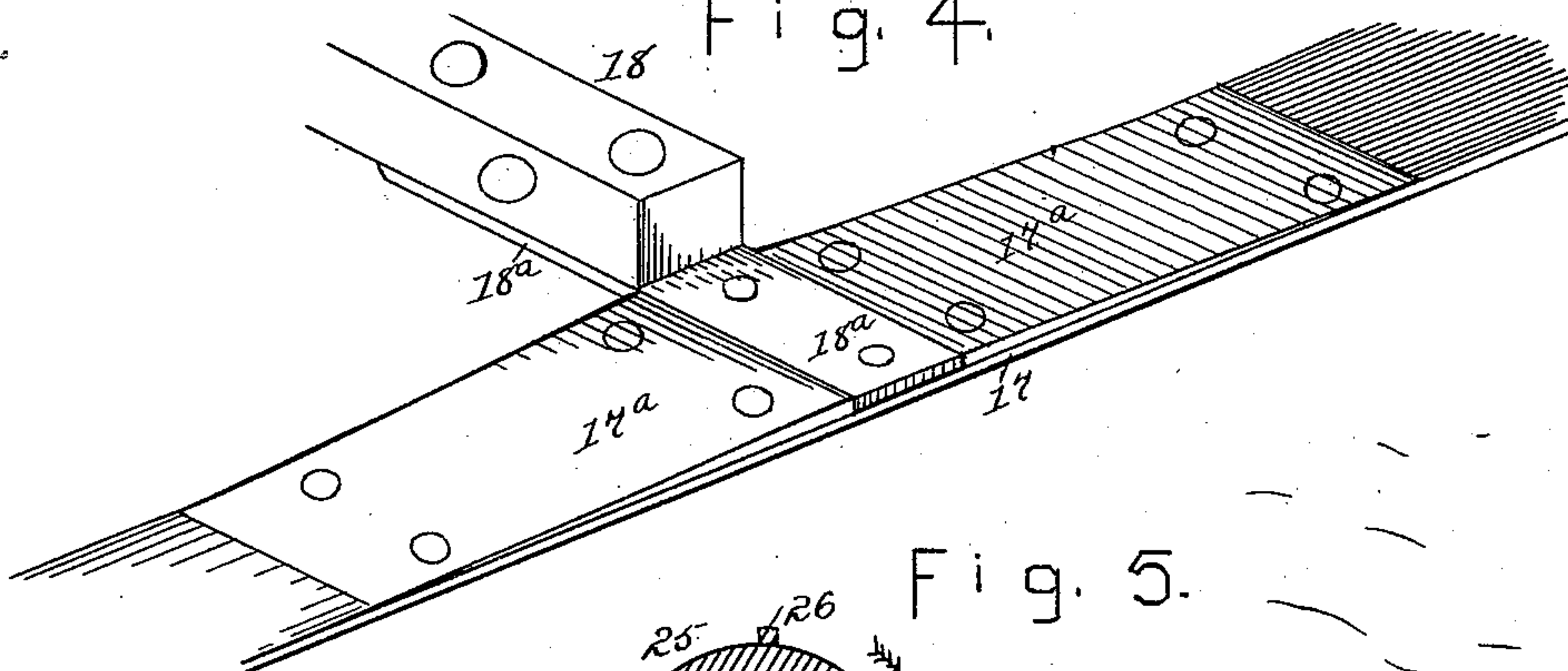
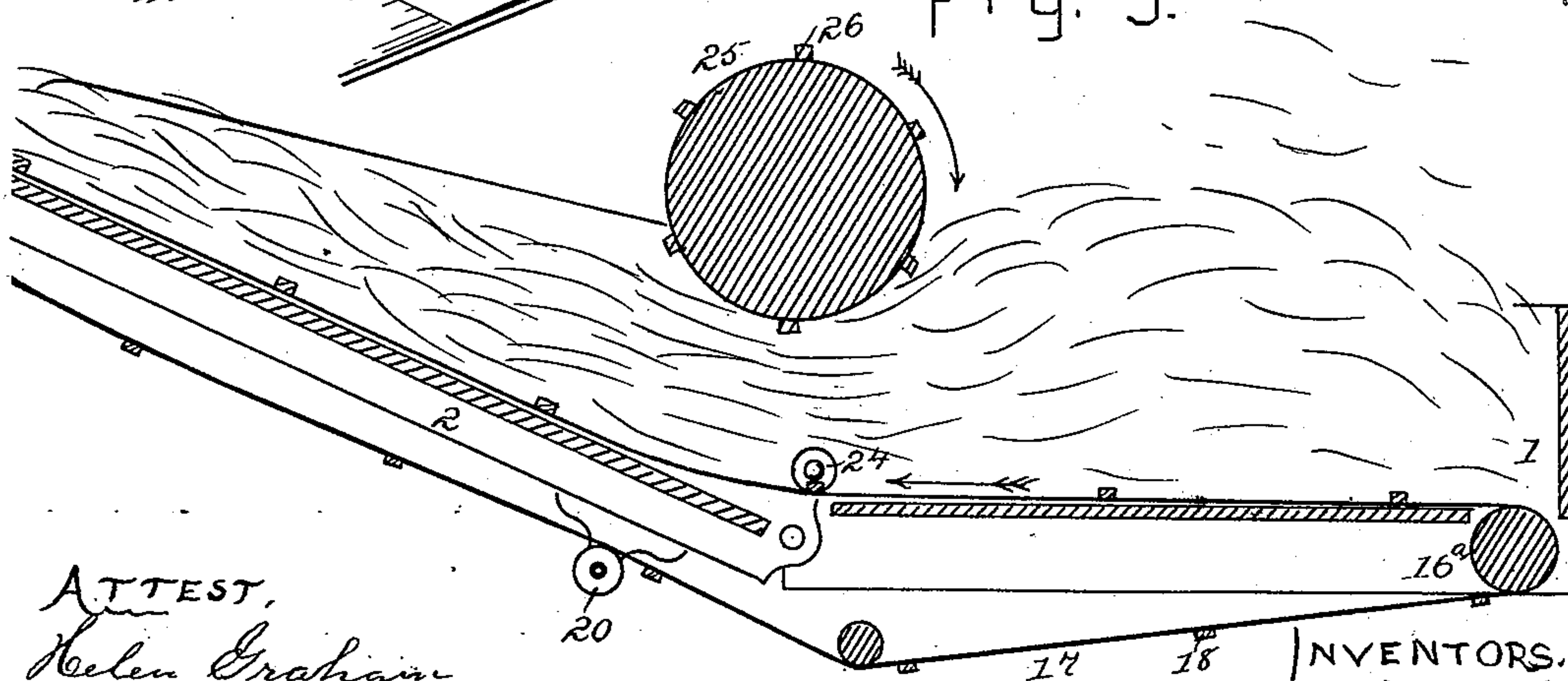


Fig. 5.



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Helen Graham
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18 INVENTORS.
MARTIN and
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UNITED STATES PATENT OFFICE.

MARTIN HEINEKE, OF SPRINGFIELD, AND CHARLES HEINEKE, OF CARLINVILLE, ILLINOIS.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 465,371, dated December 15, 1891.

Application filed August 3, 1891. Serial No. 401,534. (No model.)

To all whom it may concern:

Be it known that we, MARTIN HEINEKE, of Springfield, in the county of Sangamon and State of Illinois, and CHARLES HEINEKE, of Carlinville, in the county of Macoupin and State of Illinois, have invented certain new and useful Improvements in Straw-Stackers, of which the following is a specification.

The object of this invention is to increase the carrying and elevating capacity of straw-stackers, thus making it possible to use narrower and lighter carriers and to carry the straw up a more abrupt incline.

In the drawings accompanying and forming a part of this specification, Figure 1 is a side elevation of our invention, together with the parts of a straw-stacker most closely connected therewith. Fig. 2 is an enlarged side elevation of our device, showing by solid and dotted lines, respectively, two positions of the swinging part of the carrier-frame and the consequent effect on our attachment. Fig. 3 is a longitudinal section showing the internal construction and mode of operation of our device. Fig. 4 is a perspective representation of the connection of a drag-bar with a carrier-belt. Fig. 5 is a longitudinal section showing a modification of our invention.

The straw-receiving box 1 is sustained in a horizontal position by uprights 7. The carrier-frame 2 is pivotally connected at 2^a with the receiving-box. Frame 3 is pivoted at 3^a. It has guides 4, one on each side, adapted to the carrier-frame, and it also has a drag-belt, as will hereinafter appear. Webs 5 are placed one on each side of the carrier-frame. They are pivoted at 5^a. They each have guides 6, adapted to the carrier-frame and to frame 3, and their function is to close the space between the carrier-frame and frame 3 in a manner to prevent the escape of straw while permitting free adjustment of the parts. The roller 8 at the top of an upright 7 is adapted to cable 9, which is used to elevate the carrier-frame in the customary or any desirable manner. Pulley 10 is on the drive-shaft of the stacker, and it imparts motion through belt 11 to pulley 12 of frame 3. A sprocket-wheel, (not shown,) also on the main shaft, imparts motion through chain 14 and wheel 15 to the shaft 16 of roller 16^a of the stacker.

Belt 17 has drag-bars 18 secured to the belt, as seen in Fig. 4. It is driven by rollers 16^a, and is guided by roller 27 and by pulleys 20 and 24. The pulleys 20 are carried by brackets 19, which are secured to the swinging part of the carrier, and roller 27 and pulleys 24 have bearings in the stationary part of the device. Roller 3^b of frame 3 drives drag-belt 22, which is provided with bars 23. Roller 21^a rotates on bearings 21 in the swinging end of frame 3 and carries belt 22.

At 13 is seen one of a pair of flexible guards, which are placed one on each side of the receiving-box, and are connected with the box and with the swinging frame 3 in such manner as to retain the straw, while permitting the adjustment and free operation of the swinging parts of the device.

The drag of the carrier consists of two belts, as 17, one at each side of the carrier-frame, and drag-bars 18, connected at each end by means of metallic straps 18^a with such belts. The straps are secured to the under side of the bars and to the upper side of the belts, as shown in Fig. 4, and beveled pieces 17^a are secured to the belts in such manner as to form gradual approaches to the bars. This construction of the drag enables it to be guided by pulleys 24 and 27, which act on the belts and ride over the straps without being affected by the drag-bars.

In operation straw is deposited in the receiving-box on drag 17 18, and is by such drag drawn under frame 3, which inclines toward the carrier at its swinging end. The drag of frame 3 moves in the direction of the moving straw and co-operates with the carrier-drag. As the straw passes under frame 3, it is gradually compacted by such frame, thus adapting a comparatively narrow stacker to carry the discharge of a thrasher and causing the straw to adhere to the drag so closely as to be carried up any desired angle.

In Fig. 5 a roller 25, having ribs 26, is shown as a substitute for swing-frame 3. This device will compact the straw to some extent, though not so completely and satisfactorily as the frame. It should be mounted in yielding bearings when used, and its drive belt or chain should have a yielding idler to compensate for variations in the position of the

roller caused by greater or less accumulation of straw. As frame 3 pivots freely on shaft 3^a and such shaft is sufficiently far from the drag to permit ready passage of the straw, it will be seen that in the preferred construction the swinging end of the frame compresses the straw against the drag, that it exerts gravity-pressure, and that it yields readily to bunches of straw or other objects having power of resistance exceeding the weight and consequent pressure of the swinging end.

We claim—

1. In straw-stackers, the combination of a straw-receptacle, a carrier-frame pivotally connected with the receptacle, a drag adapted to the carrier and the receptacle, and a yielding presser above the receiving end of the drag and having motion in the direction of the straw on the drag, as set forth.

2. In straw-stackers, the combination of a straw-receptacle, a carrier-frame pivotally connected with the receptacle, the drag adapted to the carrier and the receptacle, a frame connected pivotally with the receptacle above

the drag and having its swinging end extended up the carrier-frame, and a drag on the swinging frame having motion in a direction to force the straw upward along the carrier, as set forth.

3. In straw-stackers, in combination, receptacle 1, carrier 2, swinging frame 3, and intermediate webs 5 at the sides of the carrier and pivoted between the pivots of the carrier and the swinging frame, as set forth.

4. The combination of belt 17, drag-bar 18, and strap 18^a, secured to the under side of the drag-bar and to the upper side of the belt, as set forth.

In testimony whereof we sign our names in the presence of two subscribing witnesses.

MARTIN HEINEKE.

CHARLES HEINEKE.

Witnesses for Martin Heineke:

WM. D. CARPENTER,

THOS. H. CHENEY.

Witnesses for Charles Heineke:

R. B. SHIRLEY,

A. H. BELL.