

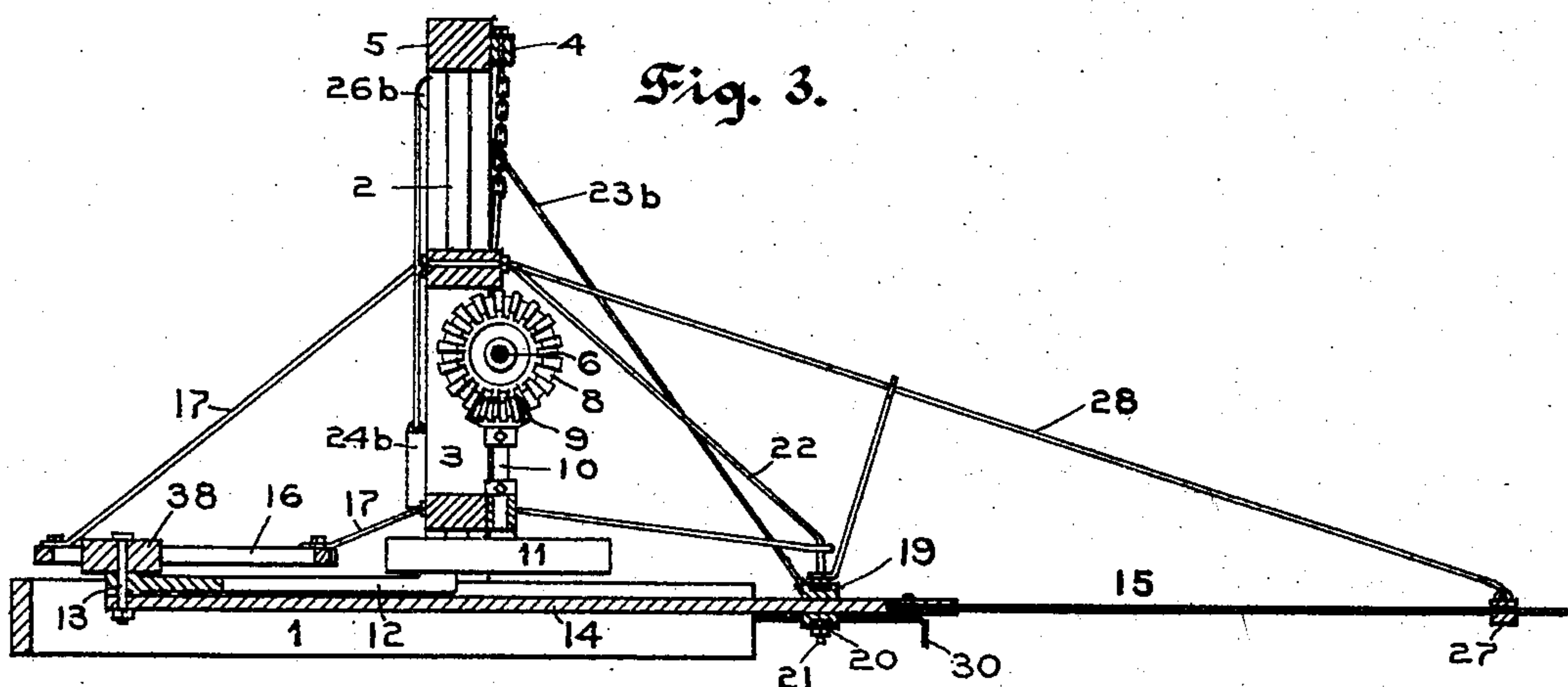
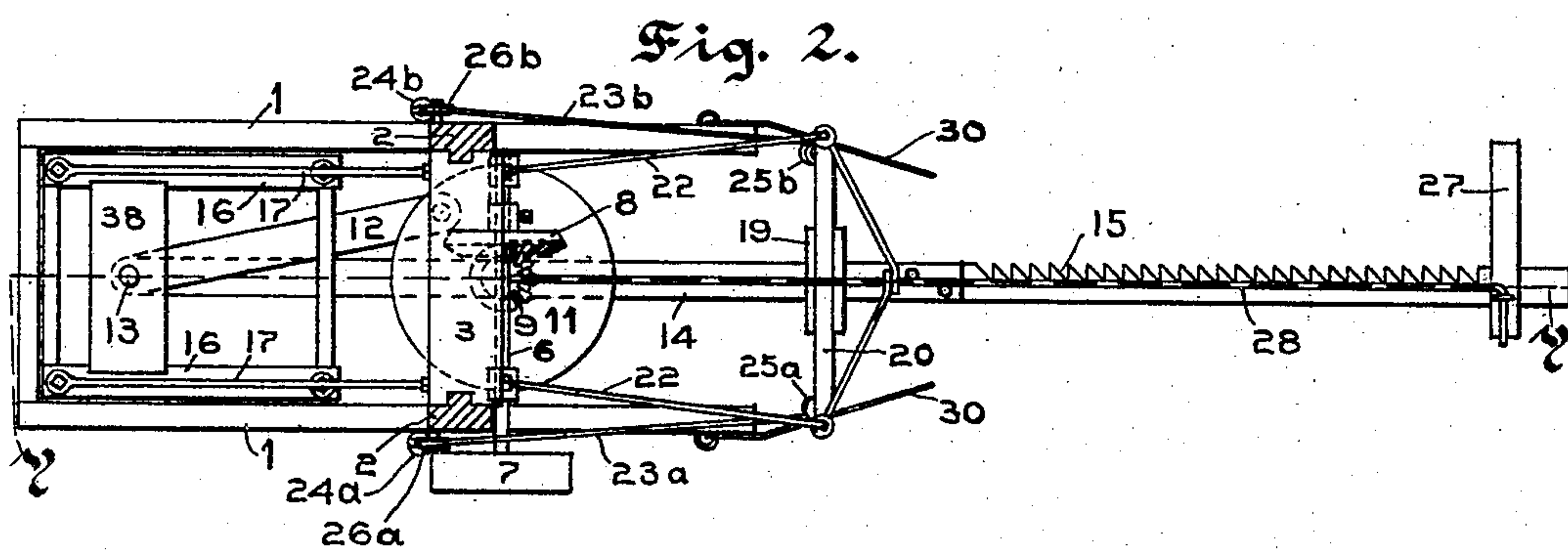
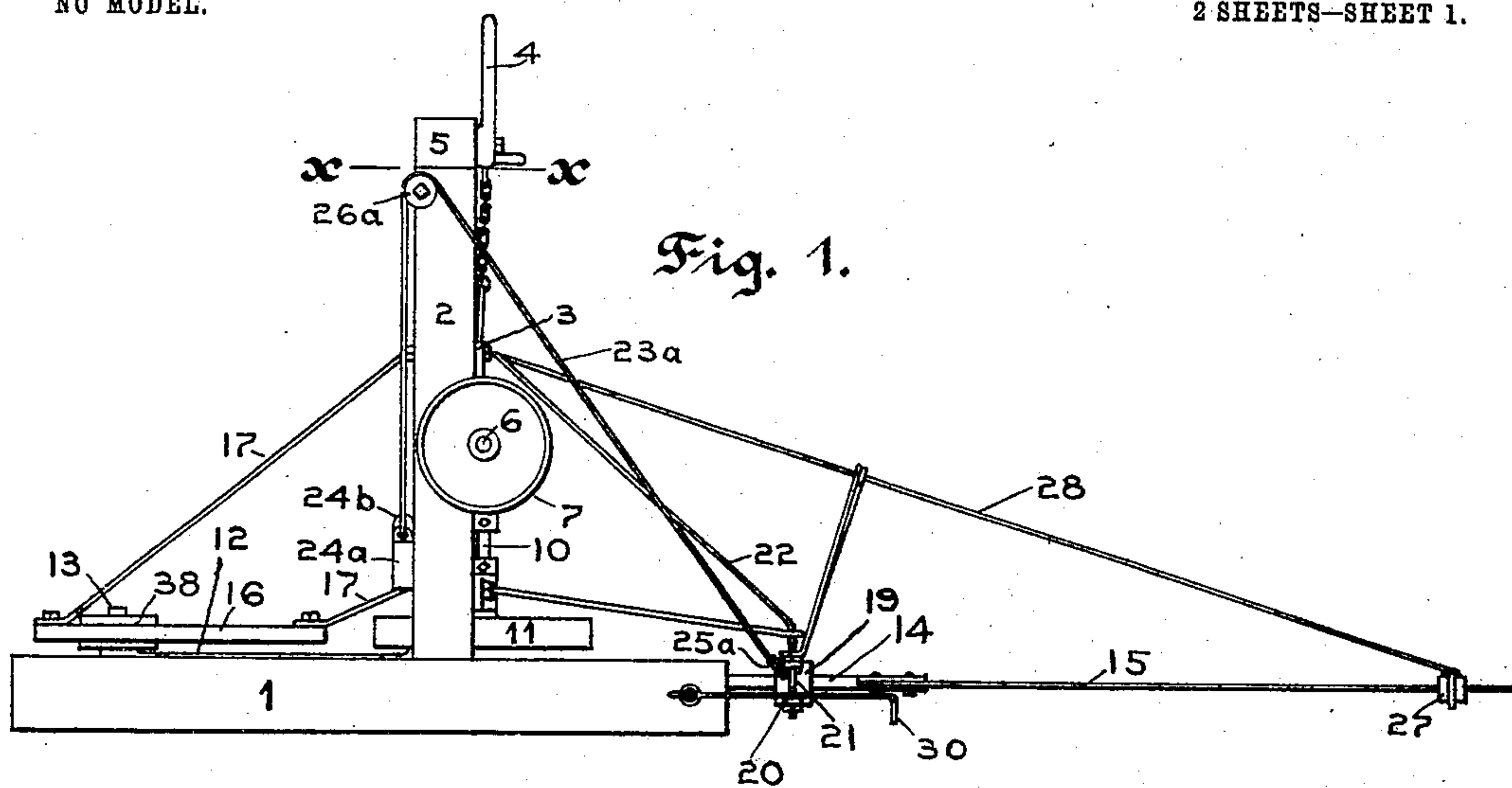
No. 765,771.

PATENTED JULY 26, 1904.

E. E. FRANK.
SAWING APPARATUS.
APPLICATION FILED AUG. 1, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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PATENTED JULY 26, 1904.

NO MODEL.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

EDWIN E. FRANK, OF HASTINGS, MINNESOTA.

SAWING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 765,771, dated July 26, 1904.

Application filed August 1, 1903. Serial No. 167,828. (No model.)

To all whom it may concern:

Be it known that I, EDWIN E. FRANK, a citizen of the United States, residing at Hastings, in the county of Dakota and State of Minnesota, have invented certain new and useful Improvements in Sawing Apparatus, of which the following is a specification.

My invention relates to improvements in sawing apparatus, its object being to provide a simple and effective power-driven sawing apparatus which may be used for sawing standing or fallen timber.

To this end my invention consists in the features of construction and combination hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved sawing apparatus arranged for sawing standing timber. Fig. 2 is a top view of the same. Fig. 3 is a section on line *y y* of Fig. 2. Fig. 4 is a side elevation of the front of the machine arranged for sawing horizontal timber. Fig. 5 is an end view of Fig. 1. Fig. 6 is an end view of Fig. 4, and Fig. 7 is a detail of guiding means for the saw.

As shown in the drawings, the supporting-framework is made up of horizontal beams 1 and uprights 2. Slidable between the uprights 2 is a frame 3, which is adapted to be raised and lowered by a lever 4, fulcrumed upon the upper cross-bar 5 of the uprights, as shown in Fig. 5. Journaled in the frame 3 is a horizontal shaft 6, carrying upon its outer end a pulley 7, adapted to be connected with a source of power, such as a gasoline-engine, (not shown,) and having mounted upon its inner end a beveled gear 8. The beveled gear 8 intermeshes with a similar gear 9, carried by the upper end of the shaft 10, said shaft 10 having journal-support in the lower cross-bar of the frame 3. Carried by the lower end of the shaft 10 is a disk 11, eccentrically connected to the under side of which is a pitman 12. The outer end of the pitman 12 is connected by a pin 13 to the adjacent end of a bar 14, which supports a saw 15, as illustrated in Figs. 1 and 3. The rear end of the bar 14 is preferably connected by the pin 13 with a block 38, slidable in the guides 16. The guides

are supported by rods 17 from the frame 3. The saw-supporting end of the bar 14 slides through an opening 18 in a block 19, said block being slidably supported between the cross-bars 20. The ends of the cross-bars are connected by bolts 21 and are supported from the frame 3 by rods 22. The block 19 is connected at its opposite ends by cables 23^a and 23^b to weights 24^a and 24^b, the cables passing intermediately over sheaves 25^a and 25^b and 26^a and 26^b. The weight 24^b is heavier than the weight 24^a, so as to draw the slidable block 19 across the apparatus to guide the saw through the timber. The forward end of the saw works through a block 27, said block being supported from the frame 3 by a rod 28.

In using my apparatus for sawing horizontal timbers I remove the saw 15 and connect a frame 29 with the frame 1 by hooks 30. Carried by the frame 29 are uprights 31, between which slides a weight 32, formed with an opening 33, through which slides a saw-supporting bar 34, which I connect with the end of the bar 14 by a hinge 35. The block 32 is connected by the cable 36 with a lever 37, by means of which it is raised.

In the use of my apparatus where it is desired to saw upright timbers the apparatus is fitted up as shown in Figs. 1 and 3, inclusive. The power then being applied through the pulley 7, the saw will be actuated through the intermediate gearing and the saw guided through the timber by the weights 24^a and 24^b. It will be understood that the frame 3 will first be set by the lever 4 at the desired height to regulate the height of cut.

In sawing horizontal timbers the apparatus will be connected as shown in Fig. 4 and the saw actuated as above described. The saw will be guided through the horizontal timber by the weight of the slidable block 32. Both where the apparatus is fitted up to saw upright as well as horizontal timber the frame 3 will be adjusted to the desired height.

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

1. A sawing apparatus of the class described, comprising in combination a vertically-slidable frame, means for supporting said frame

in adjusted positions, a crank-disk carried by
said frame, a slidable block, a pitman con-
necting said crank-disk and block, a saw con-
5 block supporting the rear end of said saw, and
a guide supporting the free end of said saw.

2. A sawing apparatus of the class described,
comprising in combination a vertically-slid-
10 able frame, means for supporting said frame
in adjusted positions, a crank-disk carried by
said frame, a block slidably supported at the
rear of said crank-disk, a pitman connecting
said crank-disk and block, a saw pivotally
supported by said block and extending for-
15 wardly past said crank-disk, a transversely-
slidable block supporting the saw in front of
said crank-disk, actuating-weights for said
block, and a guide supporting the free end
of said saw.

20 3. A sawing apparatus of the class described,
comprising in combination a vertically-slid-

able frame, means for supporting said frame
in adjusted positions, a crank-disk carried by
said frame, gearing supported by said frame
for connecting said crank-disk to a suitable 25
source of power, a block arranged at the rear
of said crank-disk and slidable toward and
from the same, a pitman connecting said crank-
disk and block, a saw pivotally supported by
said block and extending forwardly past said 30
crank-disk, a transversely-slidable guide-block
supporting said saw in front of said crank-
disk, actuating-weights connected with said
block, a guide supporting the free end of said
saw, and brace-rods connecting said guide with 35
said frame.

In testimony whereof I affix my signature in
presence of two witnesses.

EDWIN E. FRANK.

Witnesses:

FRANCES L. BOYNTON,
J. L. SMITH.