

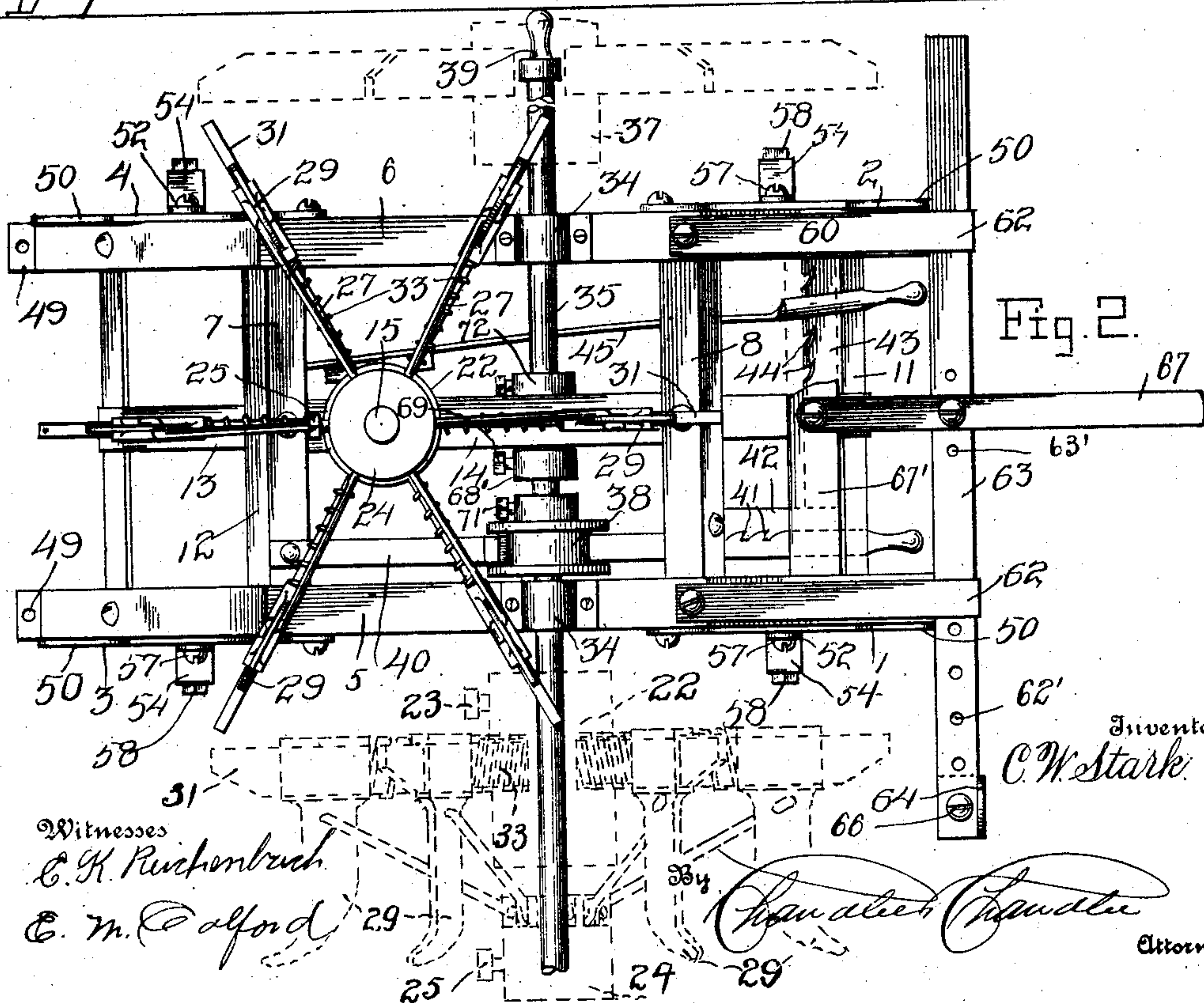
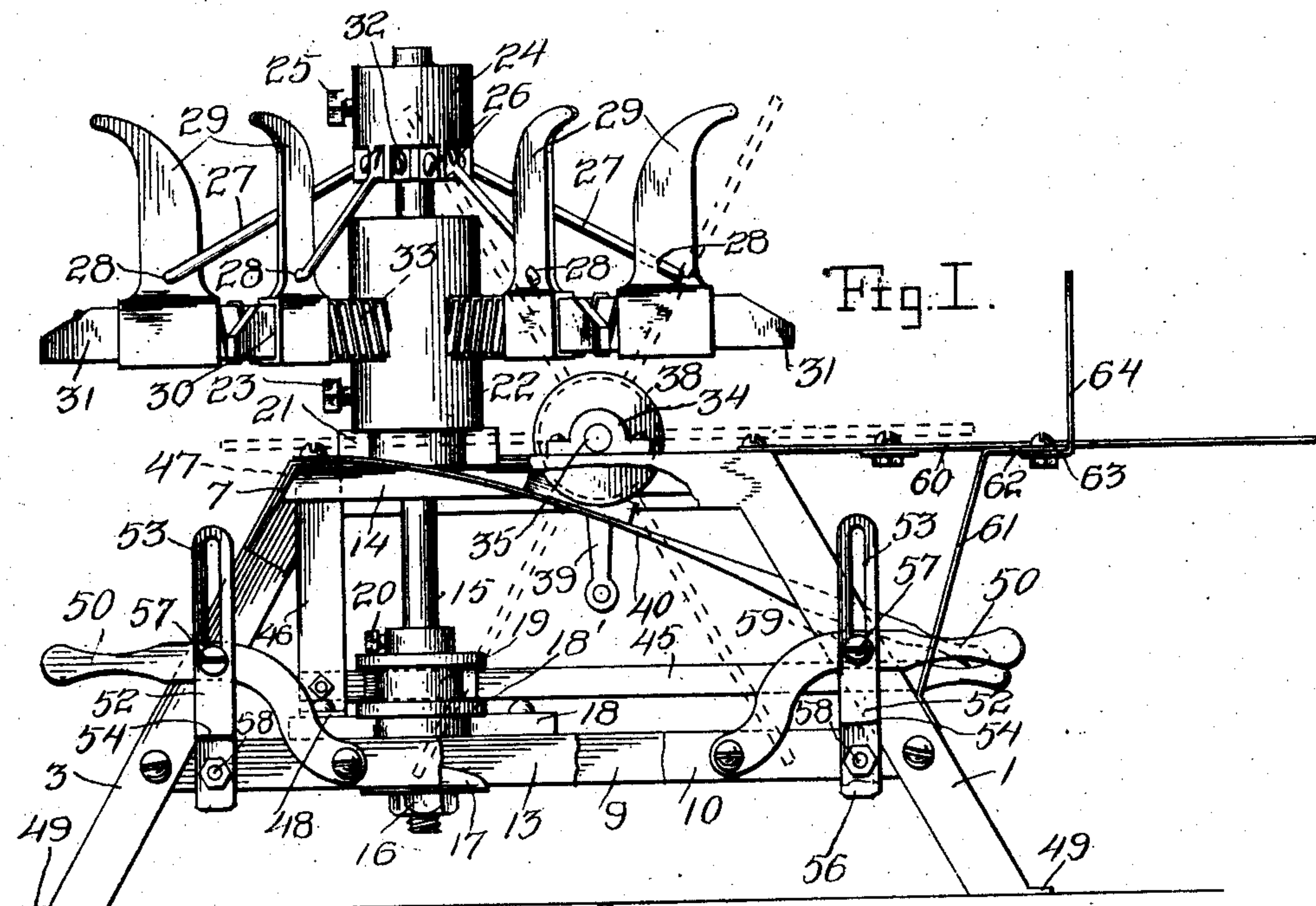
No. 854,117.

PATENTED MAY 21, 1907.

C. W. STARK.
WIRE REEL.

APPLICATION FILED JUNE 23, 1905.

3 SHEETS—SHEET 1.



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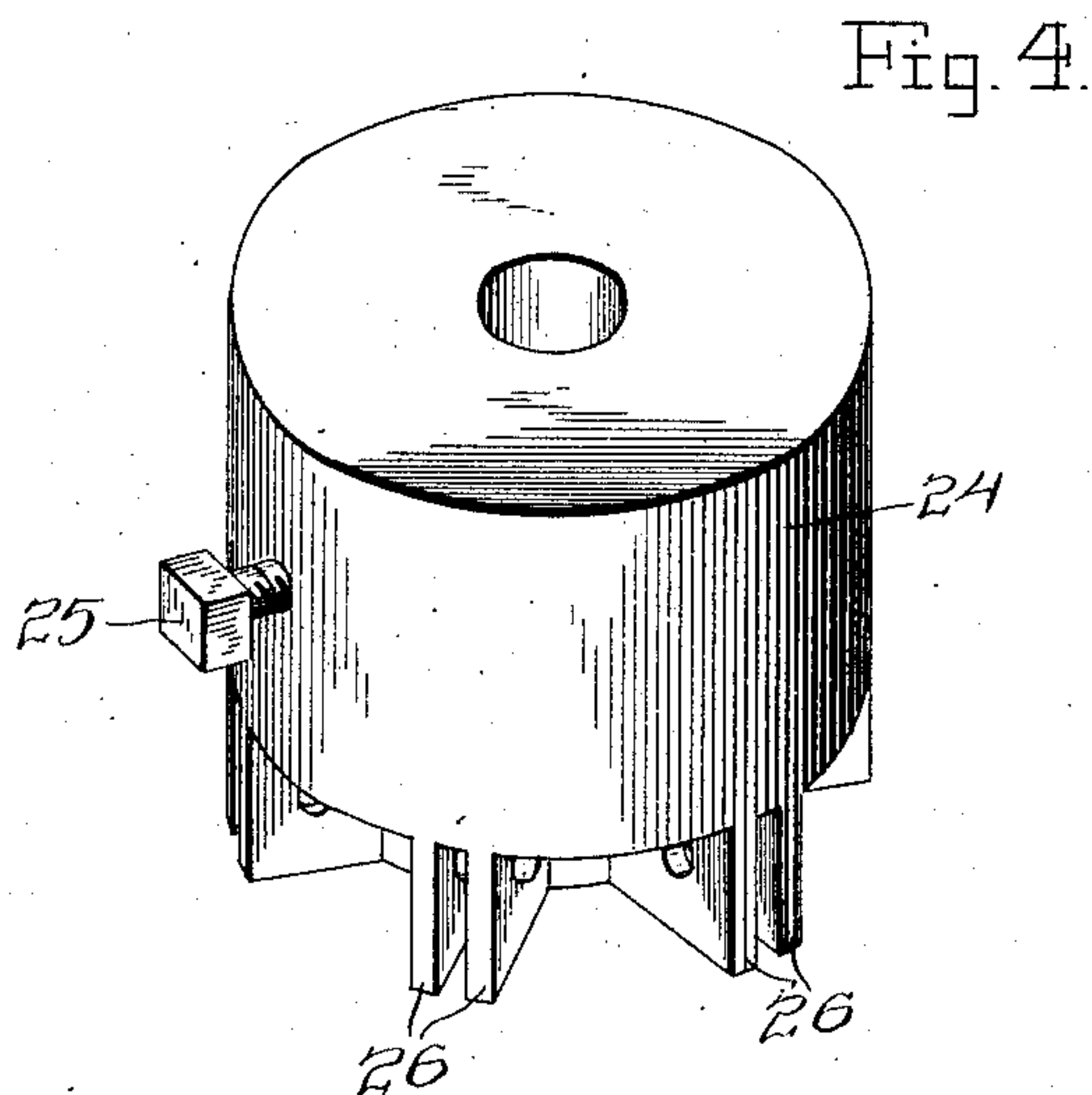
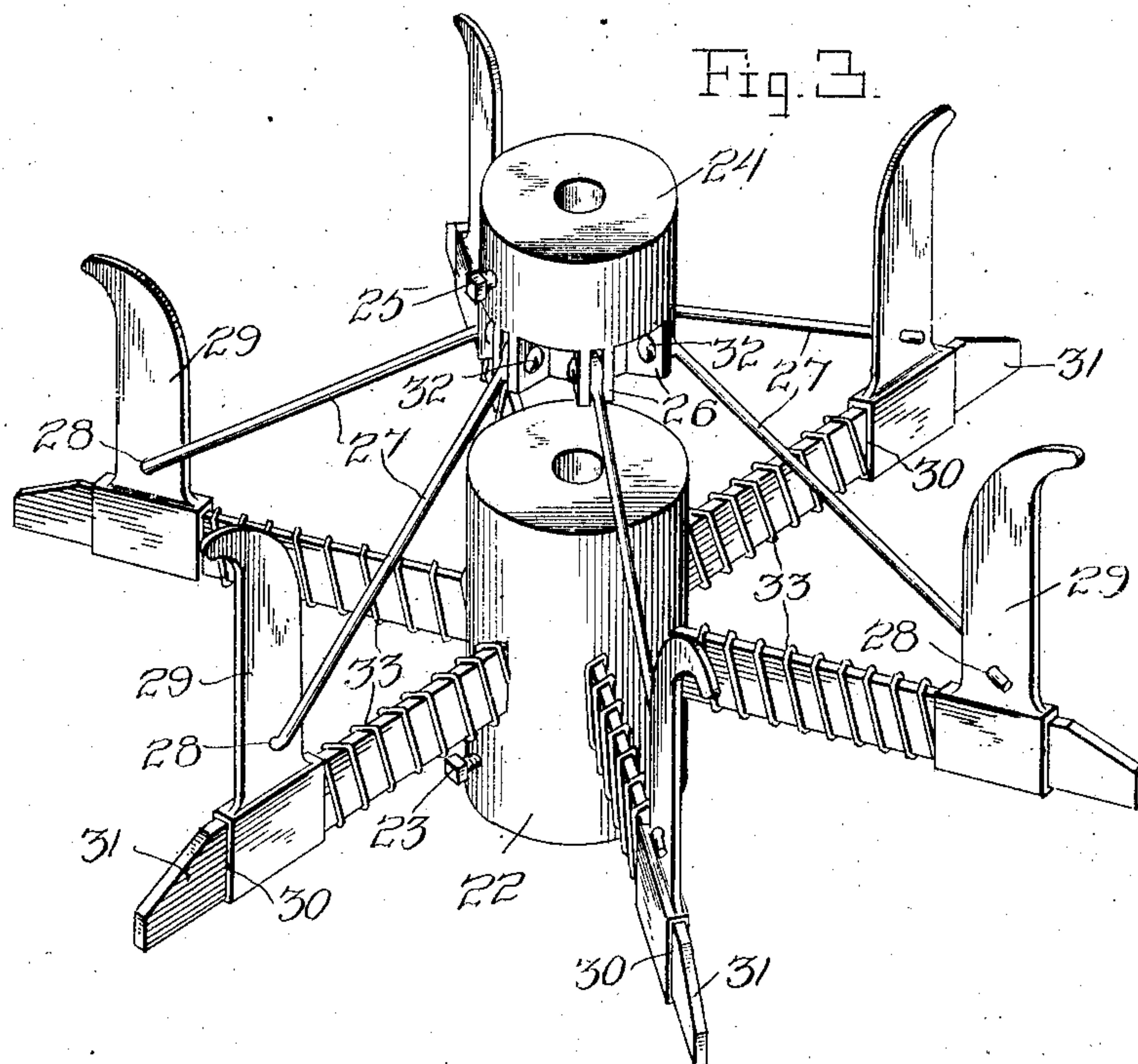
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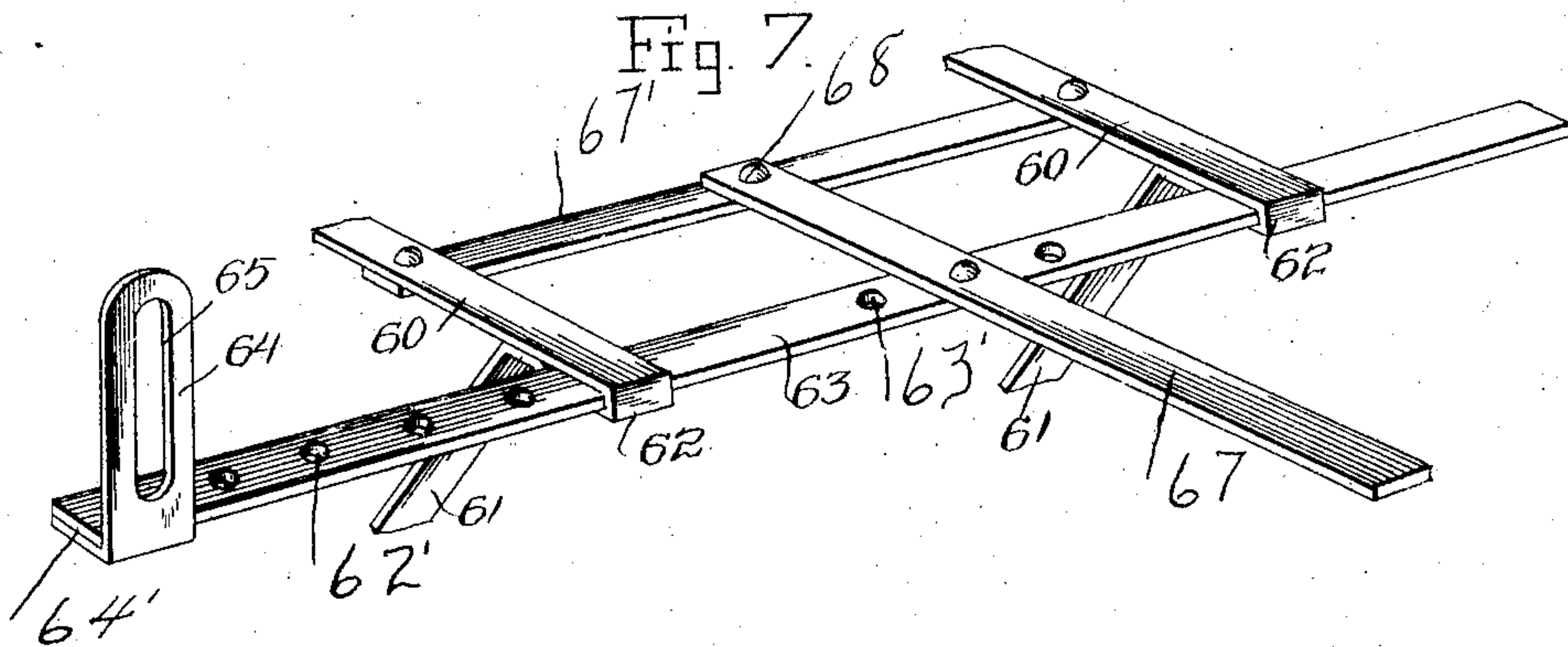
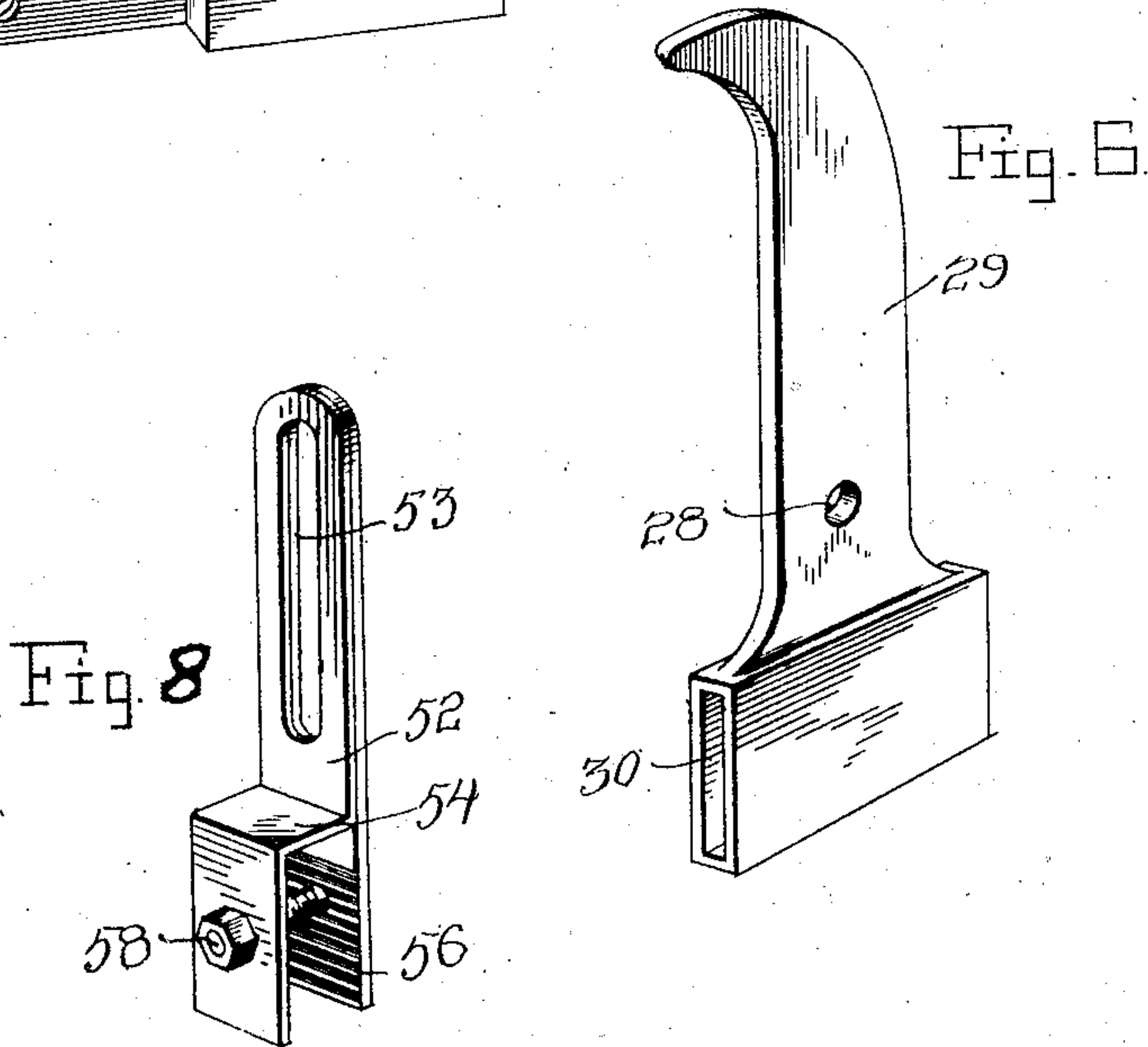
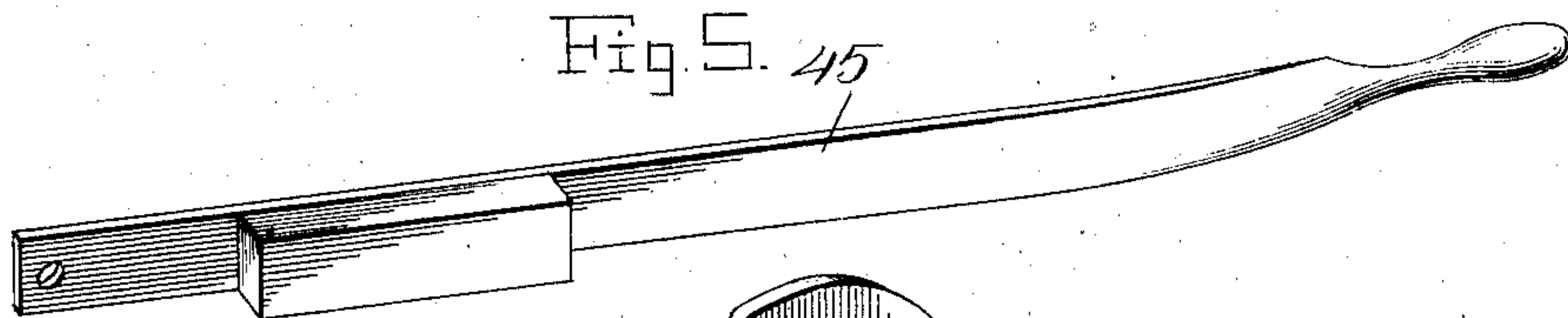
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3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLIS W. STARK, OF MOUNTAIN LAKE, MINNESOTA.

WIRE-REEL.

No. 854,117.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed June 23, 1905. Serial No. 266,665.

To all whom it may concern:

Be it known that I, CHARLIS W. STARK, a citizen of the United States, residing at Mountain Lake, in the county of Cottonwood, State of Minnesota, have invented certain new and useful Improvements in Wire-Reels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wire reeling machines.

One object of the invention is to provide a machine having one or more adjustable wire reels for taking up fence, telephone, telegraph, or any other kind of wire or for unreeling the same.

Further objects of the invention are to provide means for regulating the speed of rotation of the reels and means for attaching the machine to vehicle bodies or other suitable bases.

With these and other objects in view, the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described and shown in the accompanying drawings in which:

Figure 1 is a side elevation of the invention, parts of the same being broken away. Fig. 2 is a top plan view of the same, parts being broken away. Fig. 3 is a detail view of one of the reels. Fig. 4 is a detail view of the head arranged above the fingers of the wire reels. Fig. 5 is a detail view of one of the braking levers. Fig. 6 is a detail view of one of the reel fingers. Fig. 7 is a detail view of the adjustable wire guide; and, Fig. 8 is a detail view.

Referring to the drawings, the numerals 1, 2, 3 and 4 designate the legs of the machine and 7 and 8 indicate cross-pieces which connect the legs 3 and 4 and 1 and 2 respectively. The legs 1 and 3 and 2 and 4 are connected by side-pieces 5 and 6 which are formed integral therewith. Braces 9 and 10 connect the legs 2 and 4 and 1 and 3 near their lower ends and braces 11 and 12 connect the legs 1 and 2 and 3 and 4 at the ends of the machine. Connecting the end braces 11 and 12 is a brace 13 and disposed directly above the said brace is a brace 14 which connects the end-pieces 7 and 8. The braces 13 and 14 have aligned openings for the reception of a vertical shaft 15 which is screw-threaded at its lower end for engagement with a nut 16 be-

tween which and the under face of the brace 13 is disposed a flanged washer 17.

Secured in any suitable manner upon the upper face of the brace 13 is a washer-plate 18 provided with an opening through which passes the shaft 15. A flanged brake-wheel 19 has its lower flange 18' resting upon the washer-plate 18 and the said brake-wheel is adapted to be held upon the shaft 15 at various points by means of a set-screw 20. A second washer-plate 21 is secured to the brace 14 and upon this washer-plate is adapted to rest the hub 22 of the wire reel 22', the said hub being adjustable vertically upon the shaft 15 by means of a set-screw 23. Disposed upon the said shaft above the hub 22 is a head 24 which is adapted to be held at various points of adjustment on said shaft by means of a set-screw 25. This head 24 is provided with a series of depending paired lugs 26 and between the lugs of each of the pairs is pivotally secured the inner end of arms 27, the outer ends of the arms being each bent laterally and then parallel to the main portion of the arm, as shown, for engagement in perforations 28 in reel fingers 29. These reel fingers are each provided with a slot 30 by means of which the fingers are slidably mounted upon radial arms 31 formed integral with the aforesaid hub 22. A spring 33 is disposed on each arm 31 intermediate the hub 22 and the finger 29. It will be readily seen that wire wound upon the reel while the fingers are at their greatest distance from the hub, may be removed therefrom by raising the head 24, thus drawing the said fingers inwardly toward the shaft against the tension of the spring, and it is obvious that by reversing this operation a coil of wire may be placed upon the reel in position for unreeling. It will be noted that the upper ends of the fingers are curved outwardly, thus preventing accidental movement of wire from the reel during the operation of winding on.

Arranged transversely of the machine and mounted in suitable bearings 34, is a horizontal shaft 35. This shaft projects sufficiently beyond each side of the frame of the machine to receive the reel 22' and its head 24 on either end thereof and a suitable handle 39 is adapted to be secured to either end of the horizontal shaft 35 or to the upper end of the vertical shaft 15 for rotation of either shaft at the will of the operator. It will thus be seen that the reel may be disposed hori-

zontally of the machine or vertically of the same on either side thereof to suit the conditions under which the machine is to be used. A flanged brake-wheel 38 is secured
 5 on the shaft 35 by means of a set-screw 71. Secured to the end 7 of the frame is one end of a braking lever 40 which is adapted to engage the brake-wheel 38 to regulate the speed of the shaft 35. The free end of this
 10 lever is arranged for engagement in any one of a series of notches 41 in a plate 42 secured to the brace 8 and to a horizontally disposed rack-plate 43, secured to the legs 1 and 2. Adapted to be engaged with the teeth 44 of
 15 the rack-plate 43 is a brake-lever 45 which has its inner end secured to the lower end of an upright 46, arranged in the rear of the machine and secured to the braces 13 and
 20 brake-wheel 19 to regulate the speed of rotation of the shaft 15.

The legs of the machine are each provided with a foot 49 which may be secured to any suitable base in any desired manner. Se-
 25 cured to each of the legs and to the braces 9 and 10 are handles 50 by means of which the machine may be transported from place to place. Upon each of the legs is secured an attaching plate 52, each of which attaching
 30 plates comprises a body portion having a longitudinal slot 53 at its upper end and has at its lower end an outwardly and downwardly projecting lug 54, the inner face of which opposes the inner face of the body
 35 portion. Each of these faces has a transverse series of serrations 56 formed thereon and a headed bolt 58 passes through the lug 54 and through a suitable opening in the side board of a wagon or other vehicle and enters
 40 a screw-threaded aperture in the plate 52.

It will be seen that the entire machine may be adjusted vertically with respect to the vehicle upon which it is mounted by means of the slot 53 and a set-screw, 57 it being understood of course that the handles
 45 remain stationary, being secured to the legs. Brackets 60 having legs 61 are secured in any suitable manner to one end of the machine. These brackets are formed of a sin-
 50 gle piece of metal bent upon itself to form guides 62 for the reception of a bar 63. This bar is provided with a series of apertures 62' adjacent one of its ends and a series of apertures 63' adjacent its middle. A wire guide
 55 64 having a slot 65 is provided at its lower end with a right angularly bent portion 64' provided with an aperture through which and one of the apertures 62' is adapted to be passed a bolt 66. A bar 67 having one of its
 60 ends pivotally secured to a bar 67' which

connects the two brackets 60 is provided intermediate its end with an aperture which is adapted to aline with any one of the series of apertures 63', and a bolt 68 passes through the said aperture. It will be seen that by
 65 turning the rod 67 on its pivot, the bar 63 will be reciprocated in the guides 62 thus securing an even winding on of the wire upon the reel. The horizontal shaft 35 is held
 70 against longitudinal movement with respect to the frame by means of a suitable collar 68' secured thereto by means of set-screw 69. The said collar contacts with one side of the bracing strip 14 and a similar collar
 72 contacts with the other side of said strip. 75

What is claimed is:

1. A machine of the character described, comprising a frame, a vertical shaft arranged for rotation within the frame, a horizontal shaft mounted for rotation in said frame in
 80 advance of the vertical shaft, an expansible reel arranged for attachment to either of said shafts, means for rotating said shafts, means for regulating the speed of the shafts, and a guide carried by the machine. 85

2. A machine of the character described, comprising a frame, a vertical reel receiving shaft arranged for rotation in the frame, a horizontal reel receiving shaft mounted for rotation upon the frame in advance of the
 90 vertical shaft, means for rotating said shafts, means for regulating the speed of the shafts, and a shiftable wire guide arranged upon the front of the machine.

3. A machine of the character described, 95 comprising a frame, a vertical reel receiving shaft mounted for rotation in said frame, a horizontal reel receiving shaft mounted for rotation upon said frame in advance of the first named shaft, brake wheels carried by
 100 each of said shafts and brake-levers arranged for engagement with said brake-wheels.

4. A machine of the class described comprising a frame, a shaft journaled for rotation in the frame, a fixed head upon the shaft, 105 a head adjustably mounted upon the shaft, arms extending radially from the first named head, fingers adjustably mounted upon said arms, springs engaged upon the arms between said head and said fingers for nor-
 110 mally holding the same at the outward limit of their movement and connections between said finger and said adjustable head.

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

CHARLIS W. STARK.

Witnesses:

ABR. JANZEN,
 JOHN J. JANZEN.