

No. 685,324.

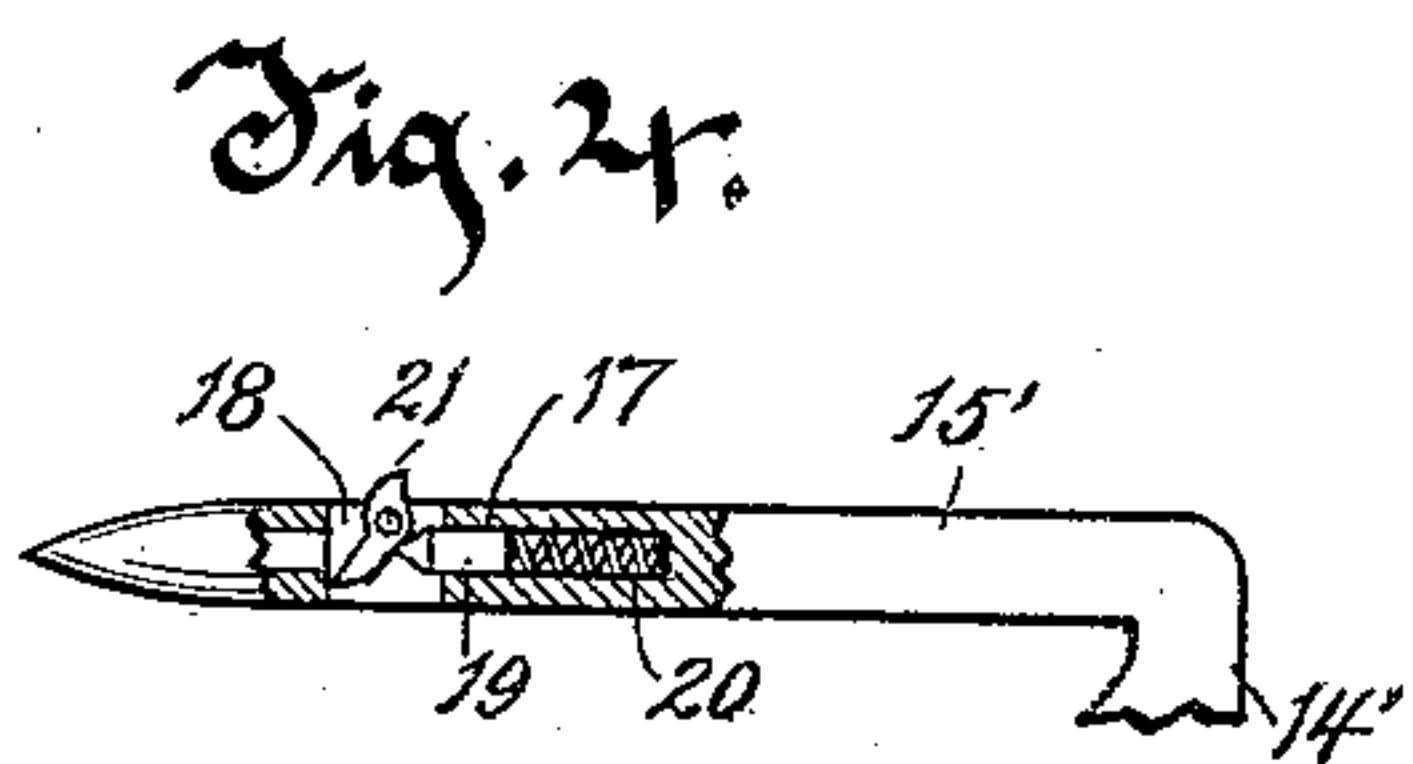
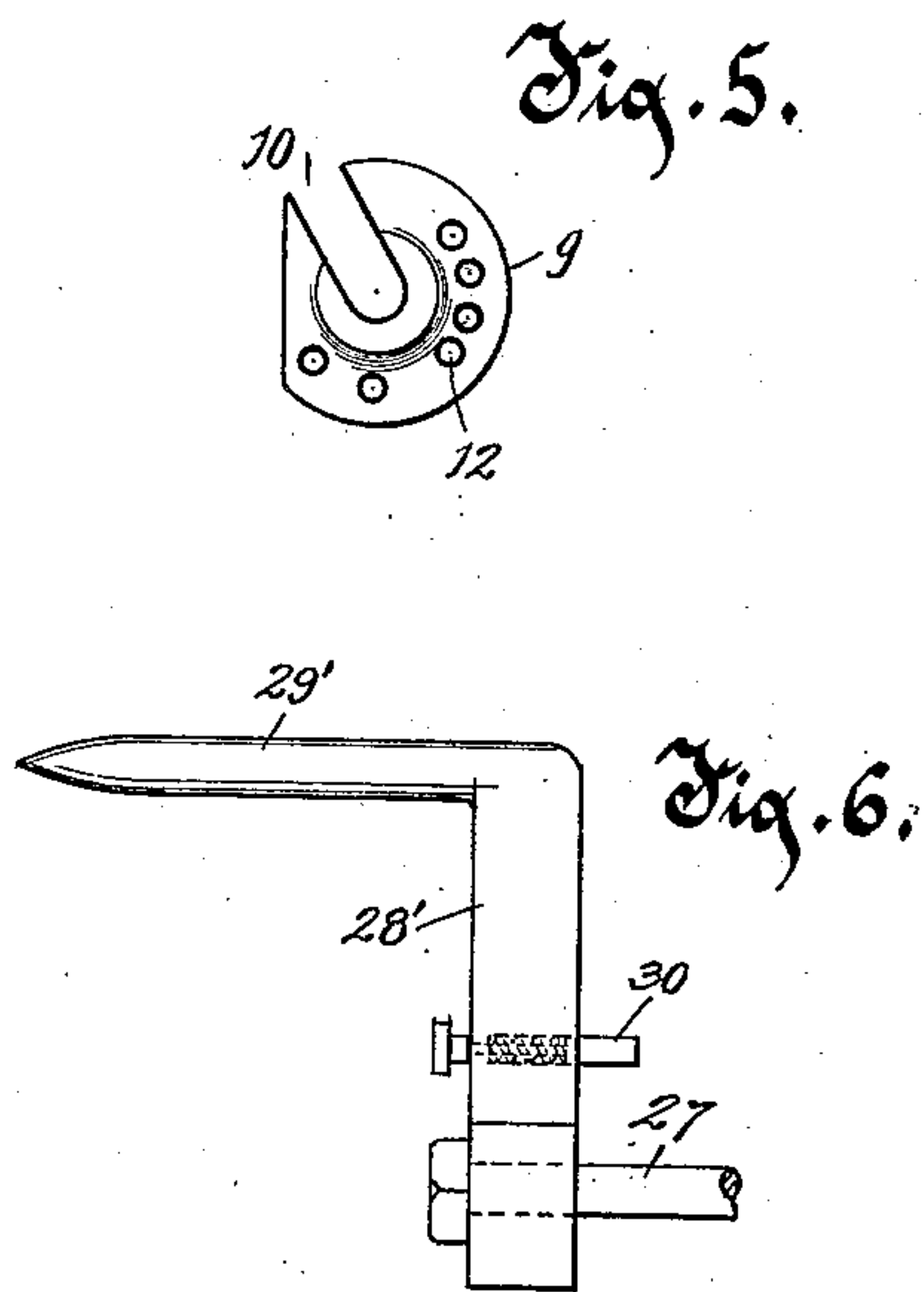
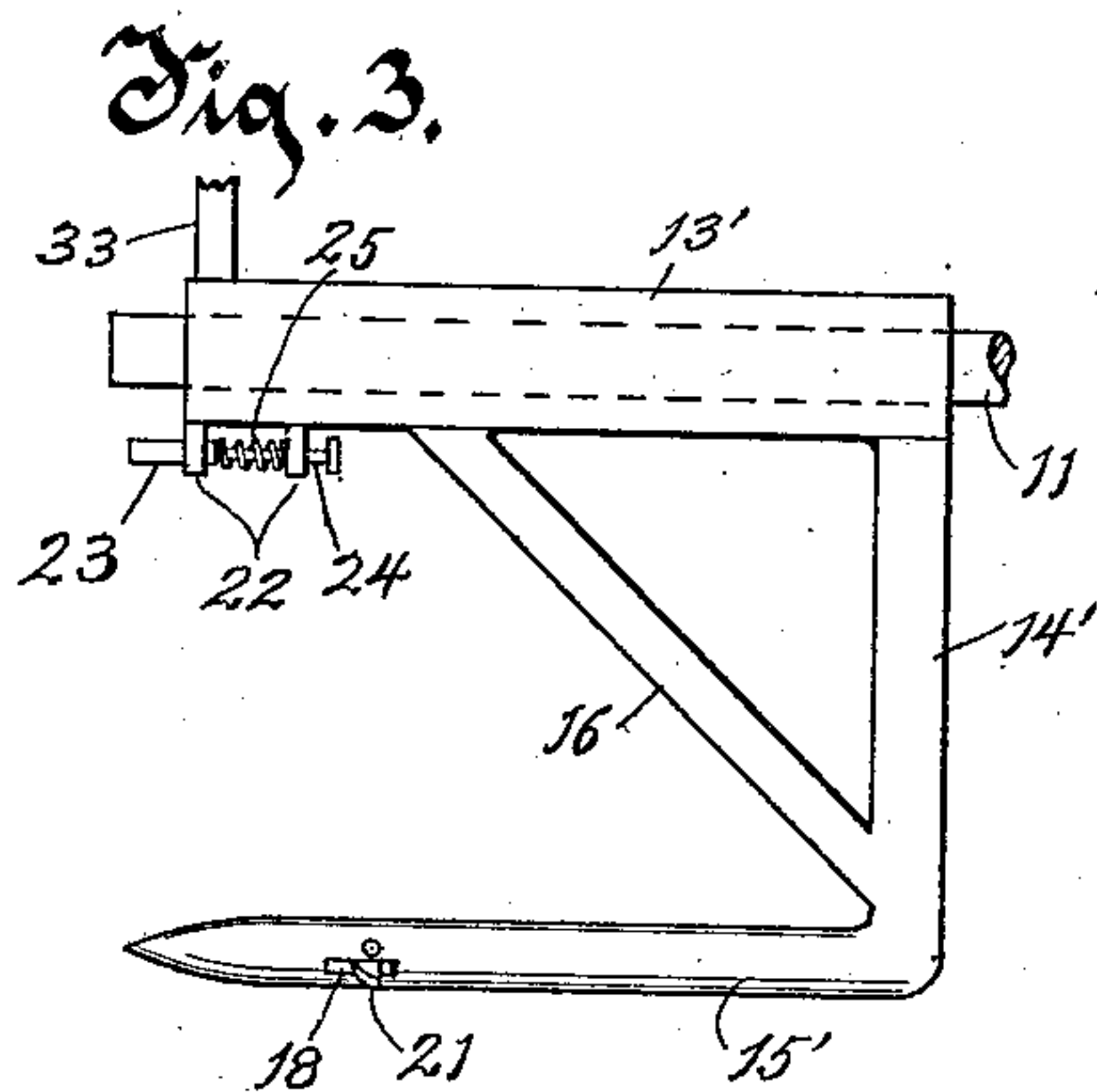
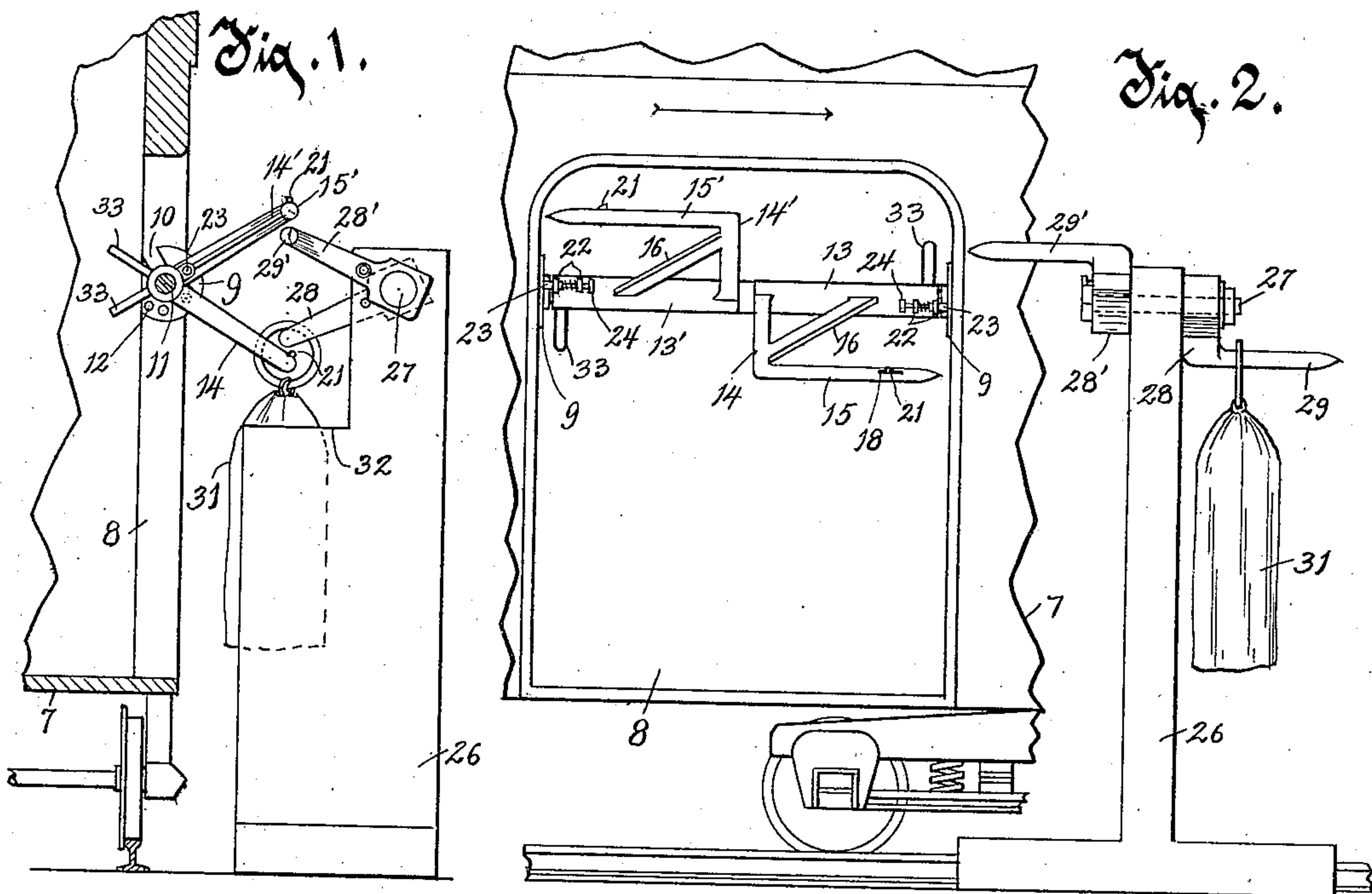
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G. S. CROMWELL.

DEVICE FOR RECEIVING AND DELIVERING MAIL BAGS.

(Application filed Jan. 7, 1901.)

(No Model.)



Witnesses.

A. H. Keeney.
Anna V. Faust.

Inventor.

George S. Cromwell.
By Benedict & Morsell.
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE S. CROMWELL, OF WAUKESHA, WISCONSIN.

DEVICE FOR RECEIVING AND DELIVERING MAIL-BAGS.

SPECIFICATION forming part of Letters Patent No. 685,324, dated October 29, 1901.

Application filed January 7, 1901. Serial No. 42,282. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. CROMWELL, of Waukesha, in the county of Waukesha and State of Wisconsin, have invented a new and useful Improvement in Devices for Receiving and Delivering Mail-Bags, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in devices for receiving and delivering mail-bags of that particular class in which the mail-bags are received from or delivered to railway-cars in motion at stations along the road.

The primary object of the invention is to provide an improved and simple construction which shall not only be capable of successfully taking up or catching a mail bag or bags while the train is in motion, but also of leaving a bag or bags.

With the above primary object and other incidental objects in view the invention consists of the devices and parts or their equivalents, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a transverse section of a car, showing one of the fingers of the arms in position to take a bag, the post at the station with its cooperating arms being also shown. Fig. 2 is a side elevation of a fragment of a car and of the post at the station, the several arms being in the same relative position as shown in Fig. 1. Fig. 3 is a detail view of one of the arms of the car. Fig. 4 is a detail view of one of the bag receiving and catching fingers, part thereof being broken away. Fig. 5 is a detail view of one of the supporting plates or segments for the pivot-rod of the arms relating to the car, and Fig. 6 is a detail view of one of the arms at the station.

Referring to the drawings, the numeral 7 indicates so much of an ordinary postal car as is necessary to illustrate the application of my invention thereto, 8 indicating the side opening or doorway of the car. To the side jambs of this doorway are secured the plates or segments 9, which are provided with inwardly-inclined open-ended slots 10, which slots receive removably therein the ends of a pivot-rod 11, said ends being seated and supported in the bottoms of the slots. These

plates or segments are also provided annularly therearound with openings 12. Mounted rotatably on the rod are sleeves 13 13', a suitable spacing-collar being mounted on the rod between the inner ends of these sleeves. Rigid with and projecting from the sleeve 13 is an arm 14, provided at its outer end with a laterally-extending finger 15. A similar arm 14' is rigid with and projects from the sleeve 13', and this arm 14' is likewise provided with a laterally-extending finger 15'. Each of the arms is preferably braced by means of a brace-bar 16, and each finger at its outer end is preferably pointed, as clearly indicated. Each finger is also preferably bored out, as indicated by the numeral 17, and this bored-out portion is intersected by a vertical slot 18. Movably fitted in the bored-out portion is a pin 19, which is acted against by a spring 20. A catch 21 is pivoted at a medial point in the vertical slot 18, and the upper arm of this catch normally projects through the slot beyond the exterior surface of the finger, while the lower arm of the catch is acted upon by the spring-pressed pin 19, so as to hold the outer arm in the normal position. (Shown in Fig. 4.) Projecting from each of the sleeves 13 13' are lugs 22 22'. Fitting movably in a transverse opening in one of the lugs of each set is a dog 23. Each dog is provided with a projecting stem 24, which passes through the other lug, and each stem is encircled by a coiled spring 25, said spring being confined between the lug and the inner end of the dog, so that the spring acts to press the dog outwardly in position to engage any of the series of openings 12 of the plates 9.

The numeral 26 indicates a post or upright at the station. Through the upper end of this post extends a rod 27, upon the protruding ends of which are mounted arms 28 28'. Arm 28 is provided with a laterally-projecting finger 29 and arm 28' with a similar finger 29'. Each arm is provided with an inwardly-extending pin 30, (see Fig. 6,) which is adapted to fit in an opening in the post, whereby each arm is held at its proper position.

In explanation of the operation of the device it will be supposed that the car is moving in the direction indicated by the arrow in

Fig. 2 and the arms carried by the car are set in the position indicated in the drawings and a mail-bag 31 is suspended from the finger 29 of the arm 28. The adjustment of arm 14 is such that the finger 15 of said arm is in line to pass through the ring of the bag, being on a plane slightly below the plane of the finger 29. Hence as the car moves in the direction of the arrow said finger 15 will pass into the ring of the bag and carry said bag off the finger 29. If it is also desired to leave mail at the station, mail-bags are suspended from the finger 15'. It will be noticed that said finger 15' is extended in an opposite direction to the direction of the finger 15 and that it is on a plane slightly above the plane of the finger 29'. The bags are prevented from being blown off the finger 15' by reason of the provision of the catch 21, which acts as an impediment against the ring of the bag passing off the finger. When, however, the finger 15' reaches the finger 29' and the ring of the bag strikes the arm 28', the catch is turned on its pivot against the action of the spring 20, and hence the ring is released and the finger 15' with the continued movement of the car is withdrawn from said ring, and hence the bag is left suspended from the finger 29'. It will be noticed that the post is provided with an abutment 32, which acts to prevent all the strain of the force of the bag being directed against the arm 28', the bag of course striking said abutment when it is deposited on the finger 29'. The proper adjustment of the arms carried by the car is obtained by releasing the dogs 23 from the openings of the plates 9 and then turning the sleeves 13 13' until the required position of the fingers is reached, when the dogs are again allowed to engage the openings of said plates. In order to conveniently turn the sleeves, I provide handles 33 33, extending inwardly from the sleeves into the car for a short distance, in convenient position to be reached by a person in the car.

If the car instead of traveling in the direction indicated by the arrow is traveling in the opposite direction, then the finger 15' is adjusted so as to be on a slightly lower plane than the finger 29' in order to take a bag off of said finger 29', while if it is desired to put a bag on the finger 29 the finger 15 is adjusted so as to be on a plane slightly above the plane of the finger 29. In this adjustment, in which the finger 15' acts as the taking-finger, the arm 14 serves as an abutment for the bag, said bag, owing to the swinging force given thereto, striking against the arm referred to.

It is obvious that a number of mail-bags may be placed on the different fingers, so as to make the device readily adapted for taking or leaving a number of bags.

By providing for the removability of the rod 11 said rod can be taken from the position shown in Fig. 1 and transferred to the

opposite side opening of the car, the jambs of said opposite side opening of course being provided with the plates 9.

What I claim as my invention is—

1. The combination with a finger carried by a car and adapted to have a mail-bag suspended therefrom, said finger being bored out for a desired distance, the bored-out portion intersected by a vertical slot, a spring-pressed pin movable in the bored-out portion of the finger, and a catch pivoted in the intersecting slot and normally acted upon by the pin so that one end thereof will project beyond the outer surface of the finger, but adapted to be turned so that said end will be forced down in the slot to permit the ring of the bag to pass off the finger.

2. The combination of independently-rotatable parts, arms extending therefrom, said arms provided with projecting fingers extending in the direction of the length of the car but in opposite directions to each other, means for holding said rotatable parts in any position to which they may be rotated, and fingers located at a station and out of horizontal alinement with each other and respectively extending in the same direction as the respective fingers carried by the car.

3. The combination of a post located at a station, said post provided with an abutment, a finger carried by and projecting from the post, and means carried by the car for depositing a mail-bag on the finger, the abutment of the post being below the finger and projecting therefrom in the direction of a transverse plane of the track, in position to receive the impact of the bag when said bag is deposited on the finger from the moving car, whereby the abutment is adapted to relieve the finger of the strain of said bag.

4. In devices for receiving and delivering mail-bags, the combination of a rod arranged transversely of the doorway of a mail-car, sleeves rotatably mounted on said rod, each sleeve provided with an arm extending outwardly therefrom, and each arm provided with a finger projecting at an angle therefrom in the direction of the length of the car, the said fingers projecting in opposite directions to each other, means for independently turning the sleeves and for holding said sleeves in the position to which they may be turned, whereby the fingers are capable of being adjusted to varying horizontal planes, and fingers located at a station and out of horizontal alinement with each other, and respectively extending in the same direction as the respective fingers carried by the car.

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

GEORGE S. CROMWELL.

Witnesses:

J. C. THOMAS,
LEE S. HOAG.