

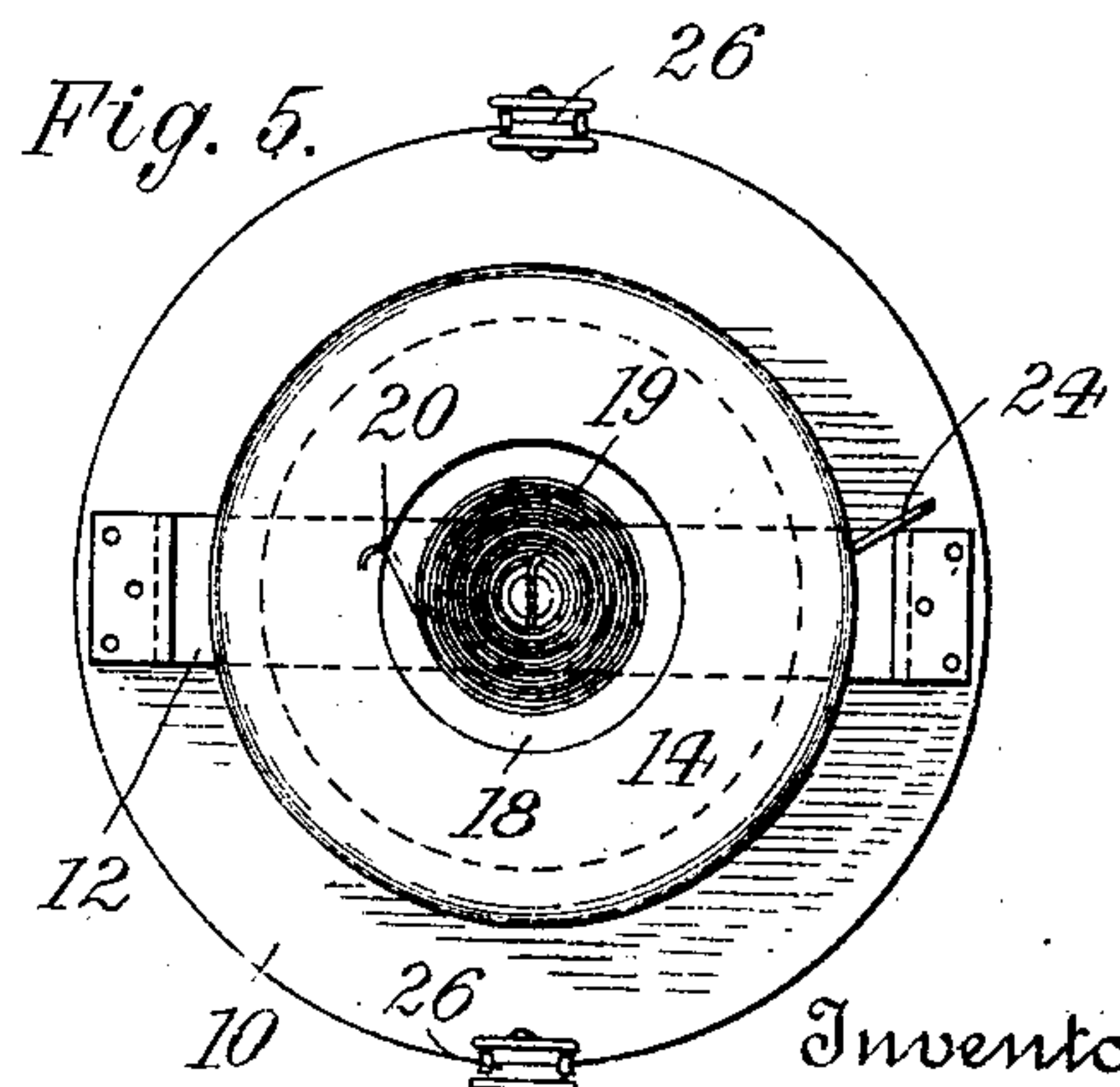
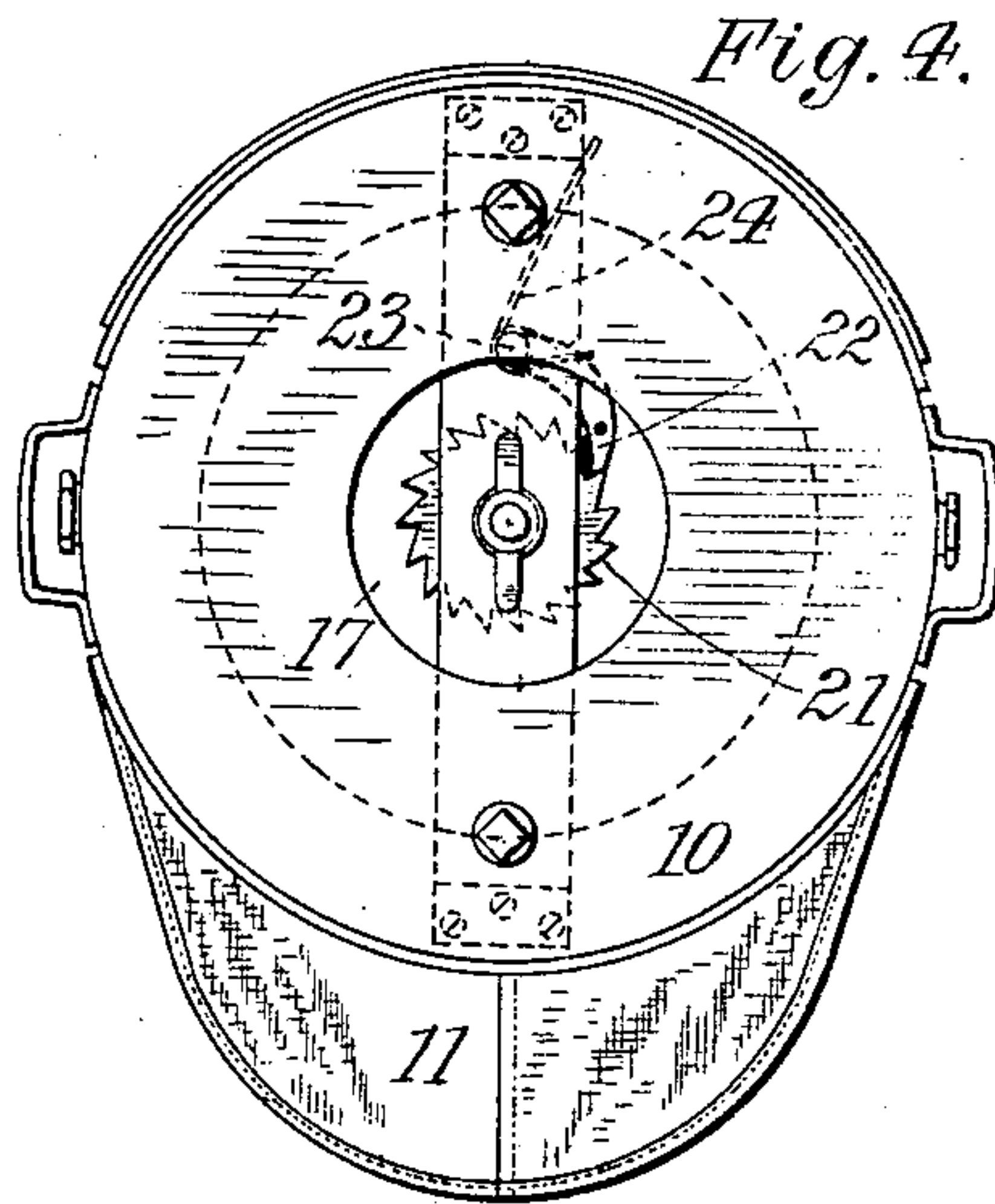
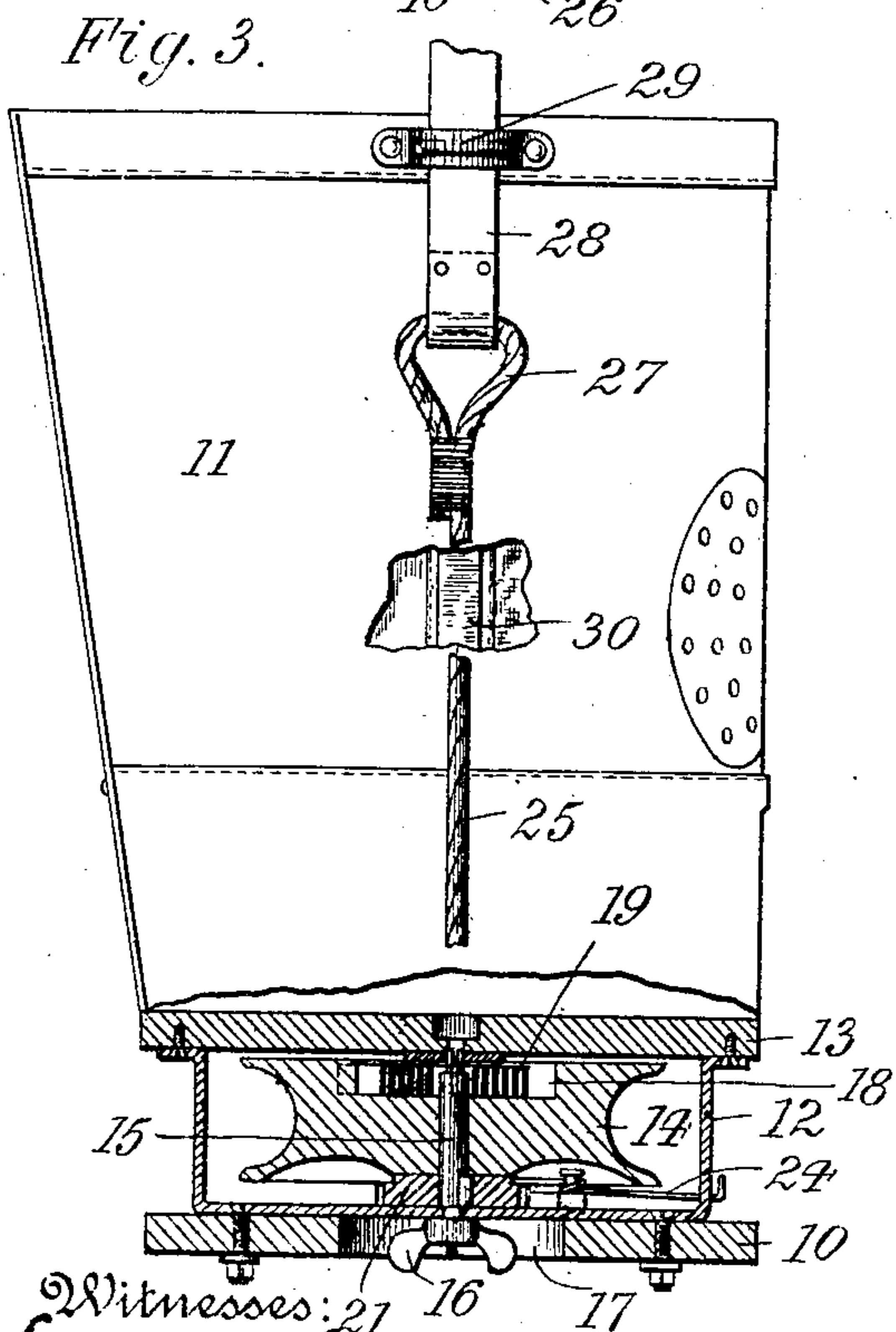
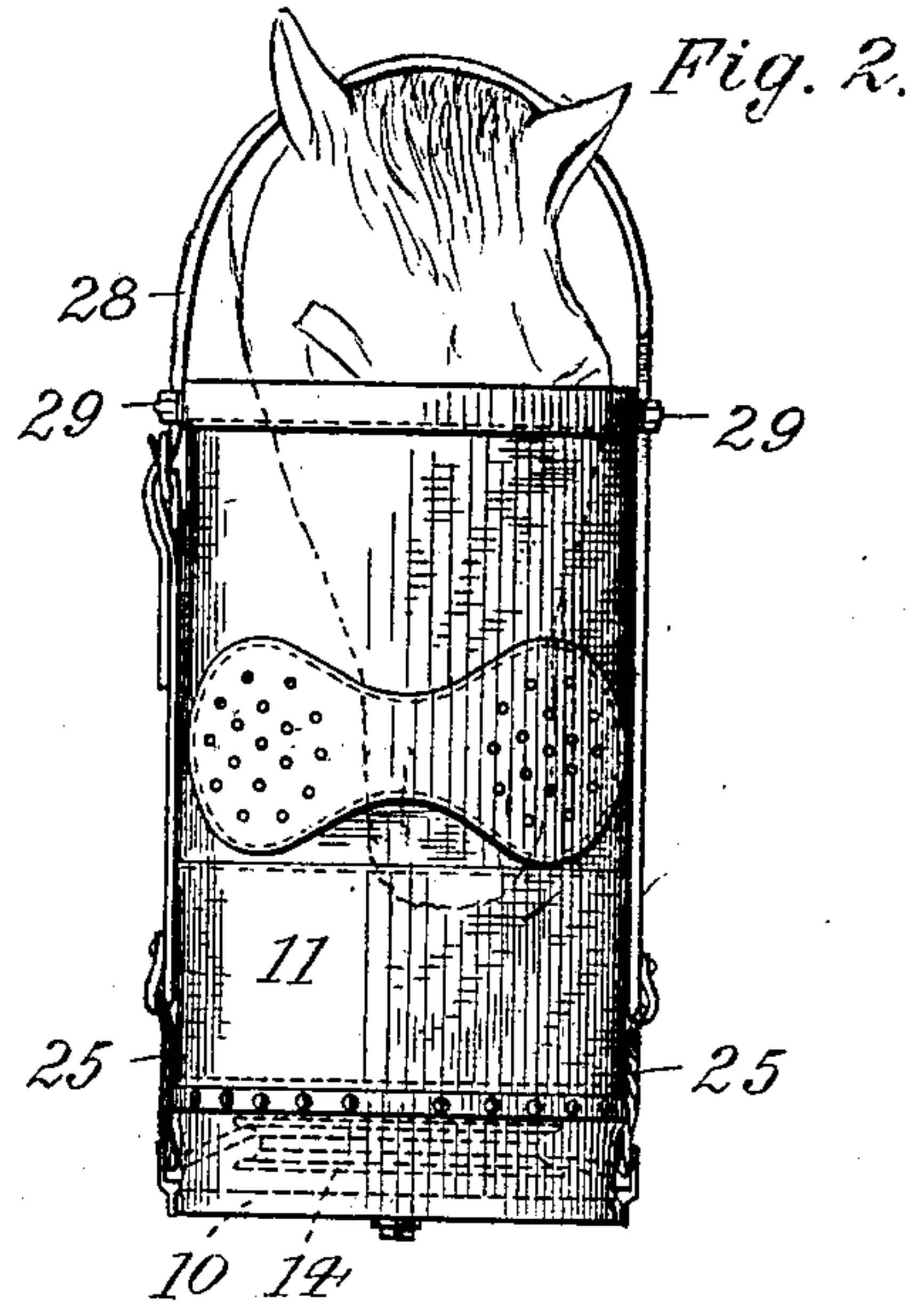
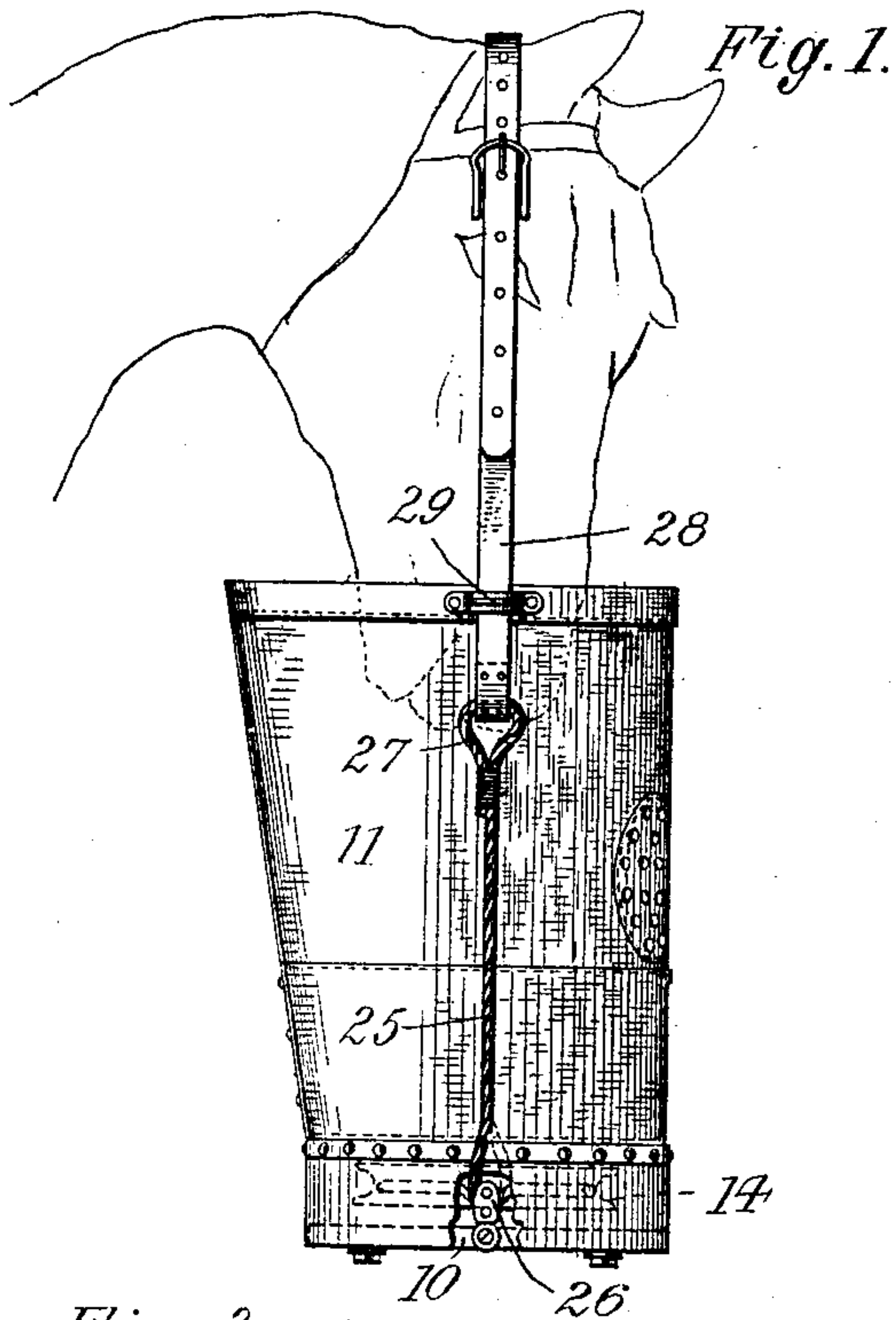
A. KAPPENBERG.

FEED BAG.

APPLICATION FILED FEB. 5, 1910.

962,708.

Patented June 28, 1910.



Witnesses: 21 16 17
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FEED-BAG.

962,708.

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To all whom it may concern:

Be it known that I, ADOLPH KAPPENBERG, a citizen of the United States, residing at New York city, county and State of New York, have invented new and useful Improvements in Feed-Bags, of which the following is a specification.

This invention relates to a feed bag of novel construction which permits the horse to consume the entire contents of the bag without inconvenience or spilling.

The invention comprises means for counterbalancing a rising tendency of a spring-influenced bag with the weight of the meal, so that as the latter is gradually consumed, the bag will be correspondingly lifted. By changing the tension of the spring the bag may be adapted to different kinds of feed, or to heavier or lighter meals.

In the accompanying drawing: Figure 1 is a side view, partly in section, of my improved feed bag, showing it lowered; Fig. 2 a front view thereof, showing it raised; Fig. 3 a longitudinal section, partly in side view, with some of the parts omitted; Fig. 4 a bottom view, and Fig. 5 a detail of the grooved wheel and adjoining parts.

Upon the bottom 10 of the feed bag 11 is supported, by a U-shaped frame 12, a false bottom 13. Between bottoms 10, 13 is interposed a grooved horizontal wheel 14 rotatable on a spindle 15 which is journaled in bottom 13 and frame 12. The lower protruding end of the spindle carries a freely accessible nut 16 which constitutes a handle and is located within a central opening 17 of bottom 10. The upper face of wheel 14 is recessed as at 18 to accommodate a spiral spring 19, the inner end of which is secured to the upper split end of spindle 15, while its outer end is directly connected to wheel 14 as at 20.

Intermediate wheel 14 and bottom 10 there is keyed to spindle 15 a ratchet wheel 21 engaged by a pawl 22 which is pivoted to frame 12, at 23, and is engaged by a spring 24. It will be seen that by turning spindle 15, by means of its handle 16, spring 19 may be wound up, more or less, to exert a regulable tension on wheel 14, which causes said wheel to revolve on spindle 15.

To diametrically opposed points of wheel

14 are secured a pair of ropes 25 which are wound around the wheel a suitable number of times and are then passed through pulleys 26 of bottom 10 and up along the sides of bag 11. The upper ends of ropes 25 have eyes 27 which are engaged by a head strap 28 which is guided in keepers 29 secured to the upper rim of the bag.

In order to prevent the bag from collapsing, it is provided with upright pockets 30 adapted for the reception of suitable reinforcing stays.

In use, the spring is so set that when the bag is filled with a normal meal, it will occupy its lowermost position, the weight of the meal checking the rising tendency of the bag. When the horse eats his feed, ropes 25 will be gradually wound upon the spring-influenced wheel 14 at a rate corresponding to the diminution in weight of the load sustained. In this way the bag will be gradually raised, so that its entire contents are freely accessible to the horse, without in any way inconveniencing the latter.

By providing means for setting spring 19, the bag may be adjusted to different kinds of feed or for differently sized horses. After being once set, the spring may retain its adjustment until it is desired to change the character or quantity of the feed.

I claim:

1. A feed bag provided with a double bottom, an intervening spindle, a recessed wheel rotatable on the spindle, ropes engaging the wheel, a spiral spring within the wheel-recess and secured to the spindle and to the wheel, a ratchet wheel keyed to the spindle, and a pawl engaging the ratchet wheel.

2. A feed bag provided with an apertured bottom, a frame mounted thereon, a false bottom mounted on the frame, a spindle journaled in the frame and in the false bottom, a wheel rotatable on the spindle, ropes engaging the wheel, a spiral spring secured to the spindle and to the wheel, a ratchet wheel keyed to the spindle, a pawl engaging the ratchet wheel, and a handle on the spindle located in the bottom-aperture.

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