April 12, 1927. 1,624,394

D. J. CRONK

NETTING HANDLER

Filed Dec. 8, 1924 4 Sheets-Sheet 1

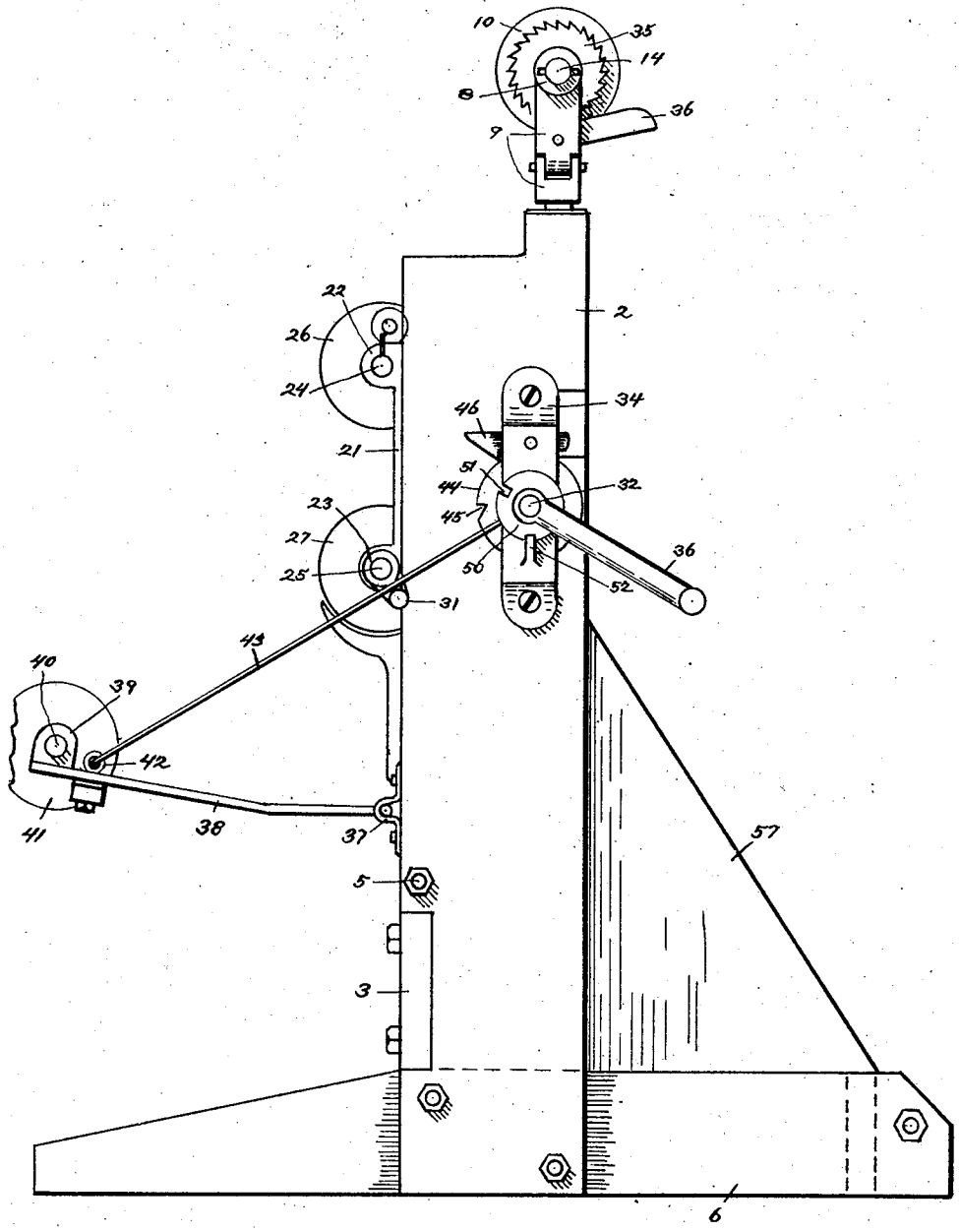


Fig 1

Inventor

David James Cronk.

By his Attorney John J. Thompson

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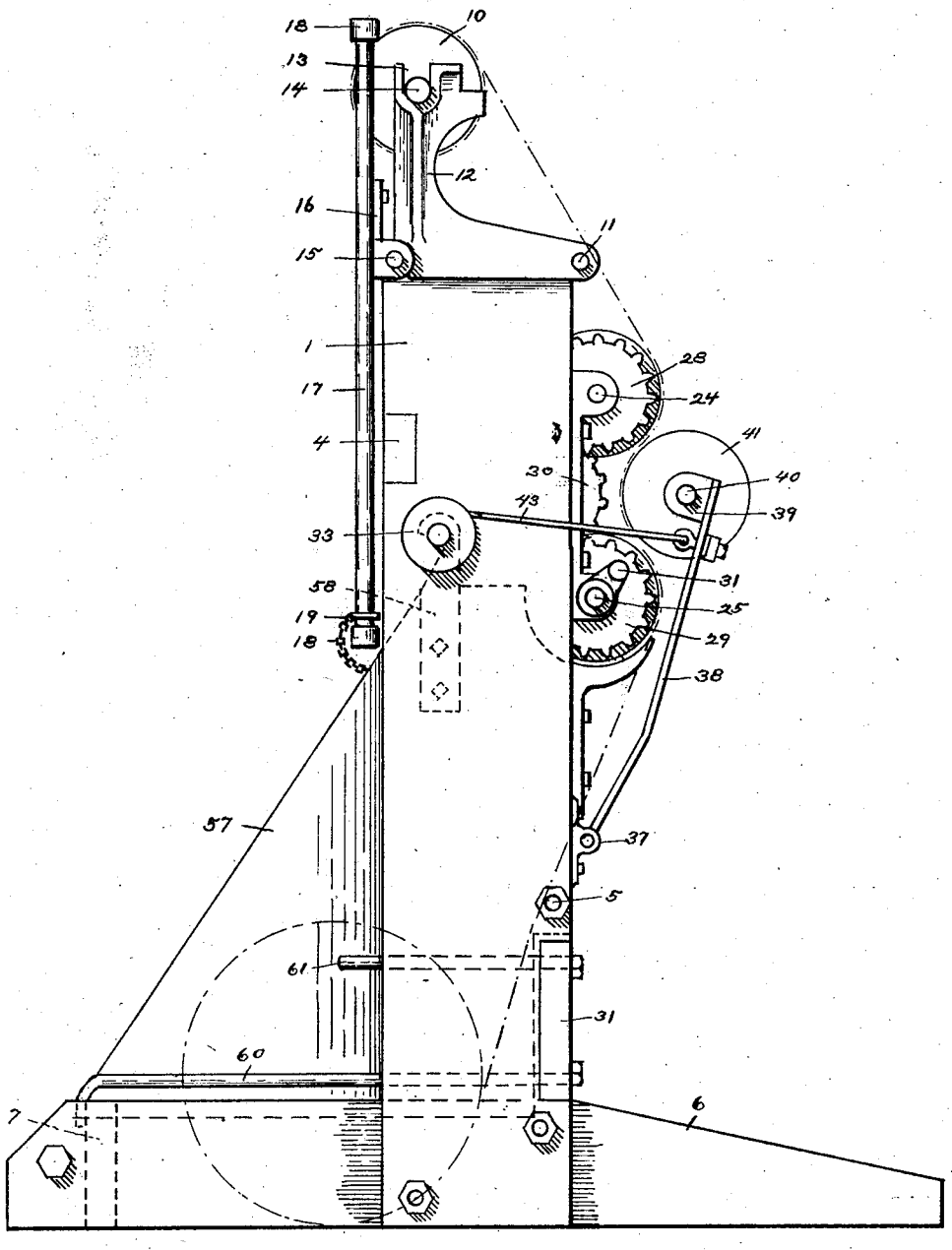


Fig 2.

Inventor
David James Cronk

By his Attorney John J. Thompson

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D. J. CRONK

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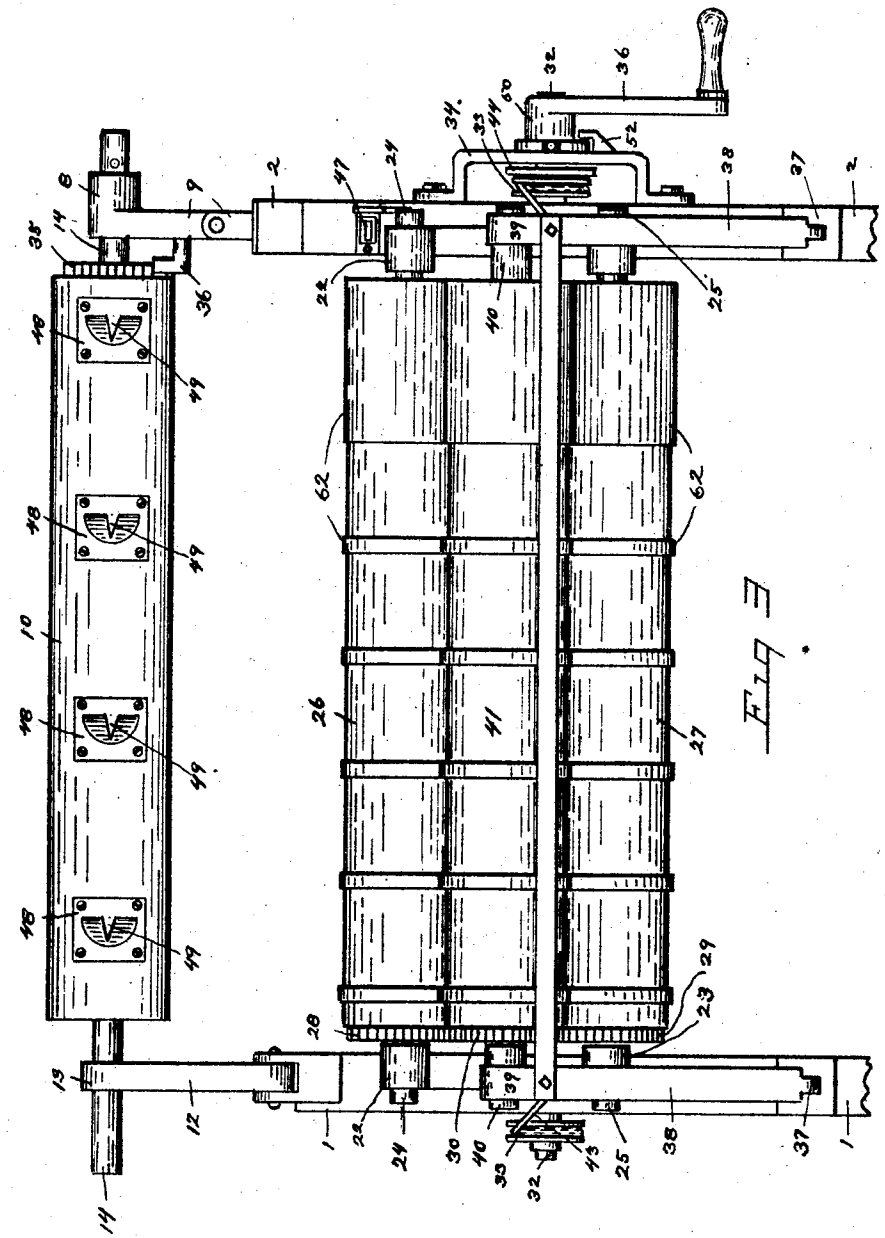


Fig 3.

Inventor
David James Cronk

By his Attorney John J. Thompson

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D. J. CRONK

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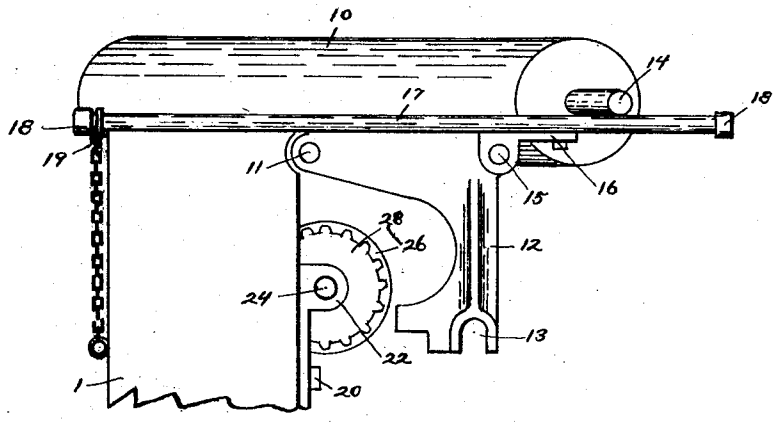


Fig 4

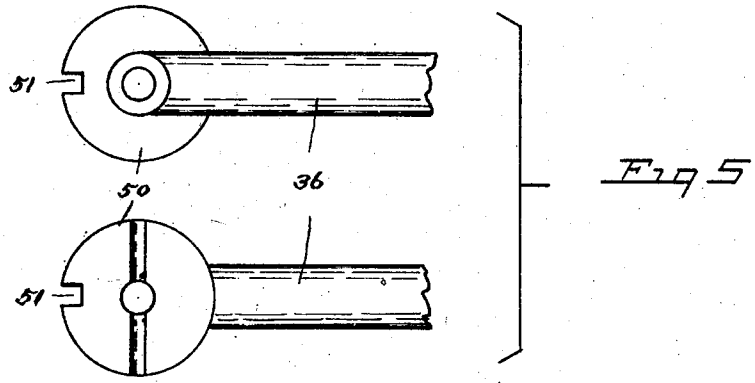


Fig 5

Inventor
David James Cronk
By his Attorney John J. Thompson

Patented Apr. 12, 1927. 1,624,394

UNITED STATES PATENT OFFICE.

DAVID JAMES CRONK, OF POUGHKEEPSIE, NEW YORK.

NETTING HANDLER.

Application filed December 8, 1924. Serial No. 754,520.

This invention relates to a machine for handling wire netting, and particularly that class known as poultry netting although other kinds of wire netting may be handled.

The object of the invention is to provide a device for use in stores to measure off and roll up predetermined quantities of netting from a stock roll of any length or width within the scope of the machine.

In the handling and selling of wire netting in stores it has been found that long floor space is required to allow the stock roll to be unrolled and measured off, or this has to be done in a loft or out of doors, requiring a great deal of labor, etc., and in some cases expending more time than will be covered by the profits on the sale.

Another object of the invention is to provide a machine that will take small floor space, handle all sizes of netting, be quick and positive in its action and render a true total of the netting run off from the stock roll.

With these and other objects in view, the invention consists in certain construction and combination of parts as will hereinafter be fully described and claimed, and illustrated in the accompanying drawings which form a part hereof and in which like figures of reference refer to corresponding parts in all of the views, and it is understood that slight changes may be made without departing from the spirit of the invention.

In the drawings:—

Figure 1. is a view of the right hand end of the machine with the tension roll in its lowered position.

Figure 2. is a view of the left hand end of the machine with the tension roll in operating position.

Figure 3. is a front elevation of the machine showing the same in an operating position.

Figure 4. is a partial view of the upper part of the left hand end of the machine, showing the delivery roller in position to allow the removal of the rolled up wire for the customer.

Figure 5. is a detail view of the handle or operating crank and method of attaching the same.

Referring to the drawings, the machine comprises the frame composed of the two end uprights 1 and 2, which are secured together by the longitudinal braces 3 and 4, and the stay rod 5, and the lower ends of the uprights 1 and 2 are secured to the feet 6, while the rear ends of said feet 6 are secured together by the brace 7.

To the upper end of the upright 2 is secured a bearing 8 by a hinged and swivel support 9, in such a manner that the delivery roll 10 may not only be raised at the other end, but swung sidewise.

To the upper end of the upright 1 is hinged as at 11 an angular casting 12, which in the position shown in Figure 2. has formed in its upper end the U shaped bearing 13 for the reception of the shaft 14 on which the delivery roll 10 is mounted.

When in the normal or operating position as shown in Figure 2. the casting 12 rests upon the upper edge of the upright 1, and the shaft 14 lies in a horizontal position, while at a point below the bearing 13 and on a line with the pivot point 11 is a second pivot point 15 to which is hinged a member 16 to which is secured a rod 17, having each of its ends capped as at 18, and upon its lower portion a slider 19 which is provided with a chain having one end attached to the upright 1, the purpose of which will be hereinafter more fully described.

To the front edge of the uprights 1 and 2 are secured the bearing members 20 and 21 which are provided with the bearings 22 and 23, within which are rotatably mounted the shafts 24 and 25 upon which are secured the friction rolls 26 and 27; said rolls 26 and 27 being timed together by a spur gear 28 and 29 secured on the shafts 24 and 25, and both being in mesh with an idler gear 30 mounted on a stud secured to the bearing member 20.

The shaft 25 is provided with an extending end on which is mounted a crank 31, the purpose of which will be more fully explained later.

At a point above the shaft 25 and towards the rear of the machine is mounted in the end uprights 1 and 2 a shaft 32, to the ends of which outside the uprights are secured the sheave wheels 33; the right hand end of said shaft 32 being provided with the bearing member 34 which is spaced from the upright 2 and secured thereto; while the end of the shaft 32 is provided with a cross pin 35 to provide driving means for the crank handle 36.

To the rear edges of the uprights 1 and 2, at a point below the shaft 25 are secured the

bearings 37 within which are pivoted the inner ends of the swinging arms 38, which arms are provided at their outer ends with the bearing blocks 39 within which are freely rotatably mounted the ends of a shaft 40, upon which is secured a tension roller 41.

For raising said roller 41 into an operative position to press the wire netting against the friction rolls 26 and 27 there is provided near the outer ends of the arms 38 an eye 42 to which is attached one end of a cable 43, the other end of which is attached to the sheave wheels 33, so that by the rotation of the shaft 32 by the hand crank 36, the cables 43 will be wound upon the sheave wheels 33 and the roller 41 brought into operating position; and for locking the same in said raised position there is provided on the shaft 32 next the sheave wheel 33, a disk 44 which is formed with a notch 45 for the engagement of a tooth 63 on the pawl 46 which is pivoted to the bearing member 34.

For measuring the wire netting there is provided a counter 47 which is mounted on the upright adjacent to the shaft 24, and means is provided on the end of said shaft for operating said counter, and the diameter of the roller 26 that each revolution of said roller will feed forward one foot of the netting.

It will thus be seen that it is important that each time that the machine is placed in operation and a stock roll of netting threaded through the rolls that said rolls shall stand in the proper position, and to accomplish this, the shaft 25 is provided with the small crank 31; which crank comes into contact with the cables 33 when in their lowered position, which will thus carry the rollers to their zero position as shown.

For gripping the end of the netting and securing the same to the delivery roll 10, there are secured to said roller a number of hooked members 48 which are flush with the surface of the roller, having depressed portions and the hooks 49 which point slightly upward and towards the left end of the machine; and upon these hooks are secured the end of the netting from the stock roll, and after the required amount of netting is rolled upon the delivery roller 10 and cut from the stock roll at a point next the roll 10, said delivery roll may be stripped of the rolled netting in the following manner.

Referring to Figure 4, the shaft is raised out of the bearing 13, and the member 12 is swung over into the position shown in said figure, and the shaft 14 is rested thereon; any overbalance being prevented by the chain 20; and the netting can now be removed from the roller 10.

To prevent the hand crank 36 from being removed from the shaft 32 before the same is in an operative position, said crank is formed with a flanged boss 50 provided with a slot 51, so placed as to register only with a lug 52 formed on the bearing member 20 when the cable 43 has been fully wound on the wheels 33, when the crank 36 may be removed and placed on the end of the shaft 14, the cross pin entering a slot in the back of said boss 50, and the crank used to rotate the shaft 14 to wind the netting on the roll 10; the backward rotation of said shaft 14 being prevented by a ratchet 55 secured on said shaft 14 and engaged by a gravity pawl 56 pivoted on the bearing casting 8.

The stock roll of netting is placed on the floor between the braces 3 and 7, and between the upright 2 and the adjustable end stop 57, which comprises a board of the shape shown, which is provided with a hook 58 designed to engage a stay rod 59 and hang therefrom, while the pins 60 and 61 enter holes formed in said braces 3 and 7, spaced at required places to take in the stock lengths of netting rolls.

The friction rolls 26 and 27 are provided with the friction bands 62 of any desired material such as rubber or fibre and of any required length or arrangement, these being for the purpose of preventing the rolls from slipping on the netting as the same passes between them, so that the count or measure may be correct.

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

1. In a machine of the class described, and in combination with a supporting frame having friction rollers mounted therein and a tension roller co-acting therewith, of a delivery roller mounted above said frame adjacent to the friction rollers, netting engaging hooks carried by said delivery roller, said hooks preventing the disengagement of the netting except in one direction, a ratchet secured to one end of said roller, and a pawl adjacent thereto to prevent the backward rotation of said roller.

2. In a machine of the class described, and in combination with a supporting frame having friction rollers mounted therein, of bearing members secured upon the upper ends of said supporting frame, one of said bearing members being hinged and pivoted to allow the bearing to be swung in both a vertical and horizontal direction, the other bearing member comprising an L-shaped casting pivoted to said frame, a rod pivoted to said L-shaped casting and adapted to assume a horizontal position when said bearing member is swung downward, a shaft rotatably mounted in said bearing member, a delivery roller carried by said shaft, netting securing means carried by said delivery roller, and means for applying tension to the netting.

3. In a machine of the class described and in combination with a supporting frame comprising two uprights, having friction rolls mounted therein and a delivery roll adjacent thereto and driving means for the same, of arms having their inner ends pivoted to said uprights, a tension roller journalled in the outer ends of said arms, a shaft rotatably mounted in said uprights and having its ends extending therefrom, wheels mounted on the ends thereof, cables carried by said wheels and attached to said arms and adapted to be wound upon said wheels for the purpose of swinging said arms toward the frame and bringing the tension roll into contact with the friction rolls to hold the netting therebetween during its passage through the machine.

In testimony whereof, I hereunto affix my signature.

DAVID JAMES CRONK.