

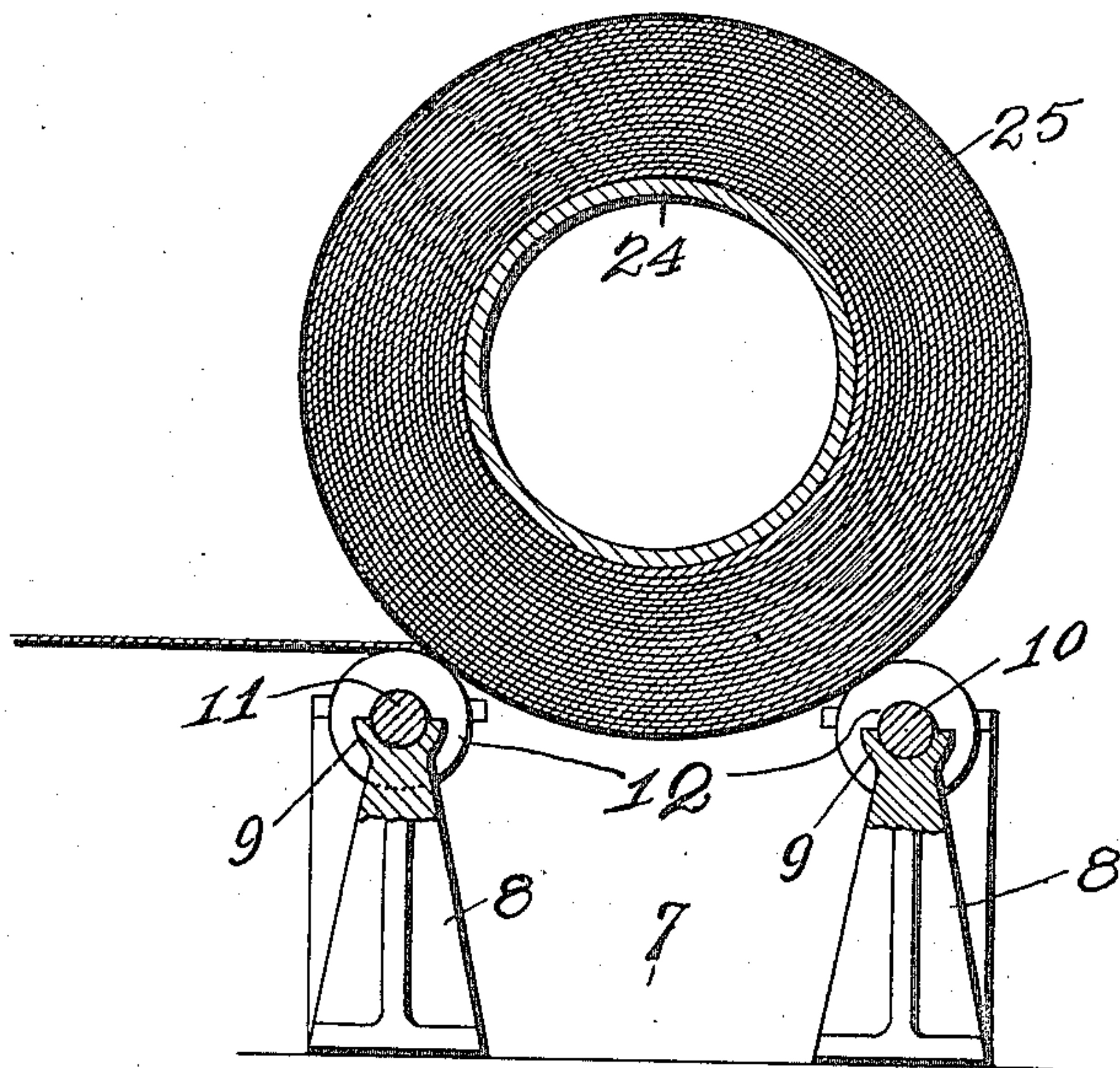
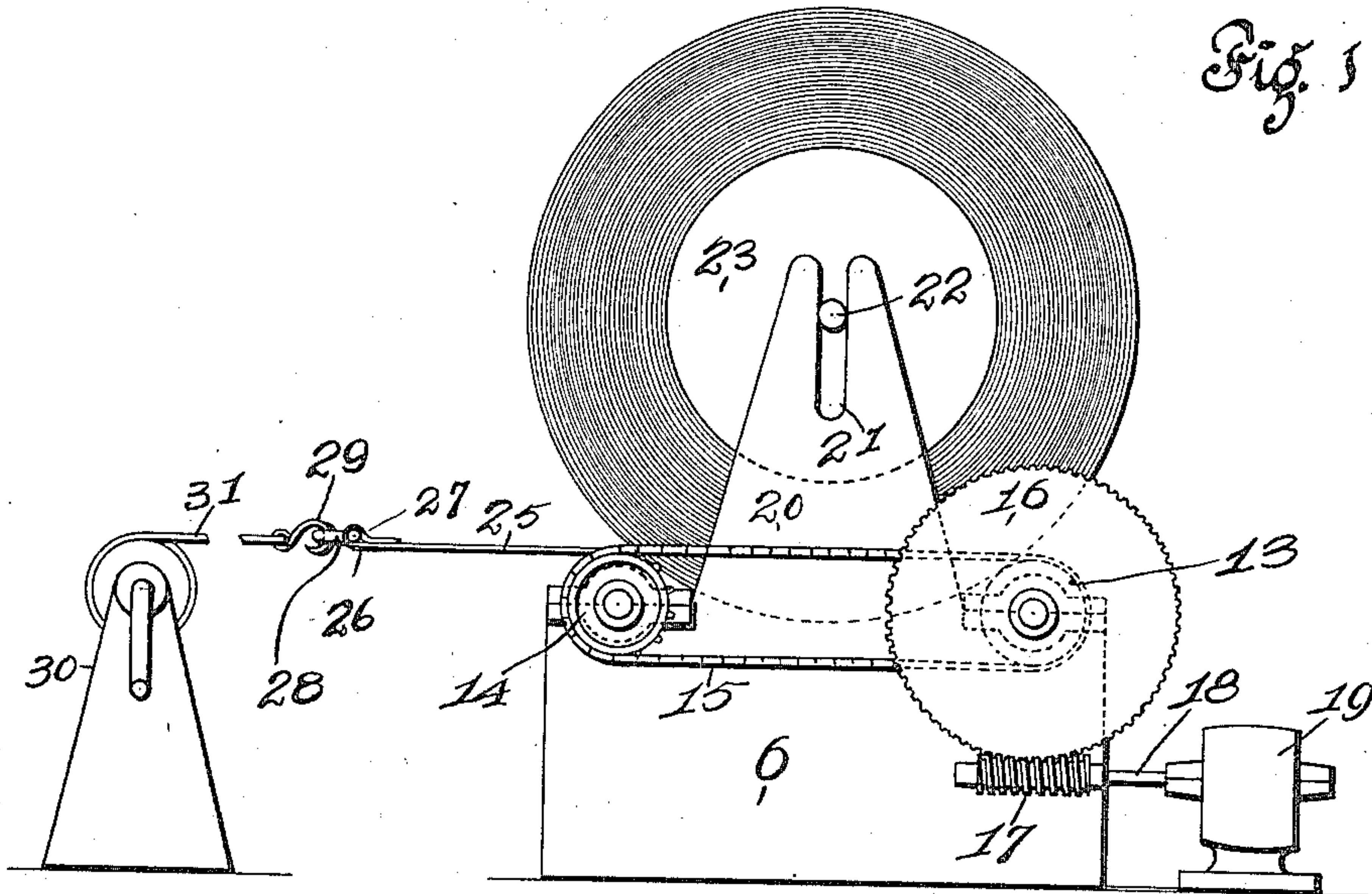
O. A. HECKEL.

APPARATUS FOR CONTROLLING THE PLACEMENT OF A COVERING OVER BASE BALL DIAMONDS.
APPLICATION FILED JUNE 20, 1914.

1,155,309.

Patented Sept. 28, 1915.

3 SHEETS—SHEET 1.



WITNESSES:

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B. M. Austine

INVENTOR.

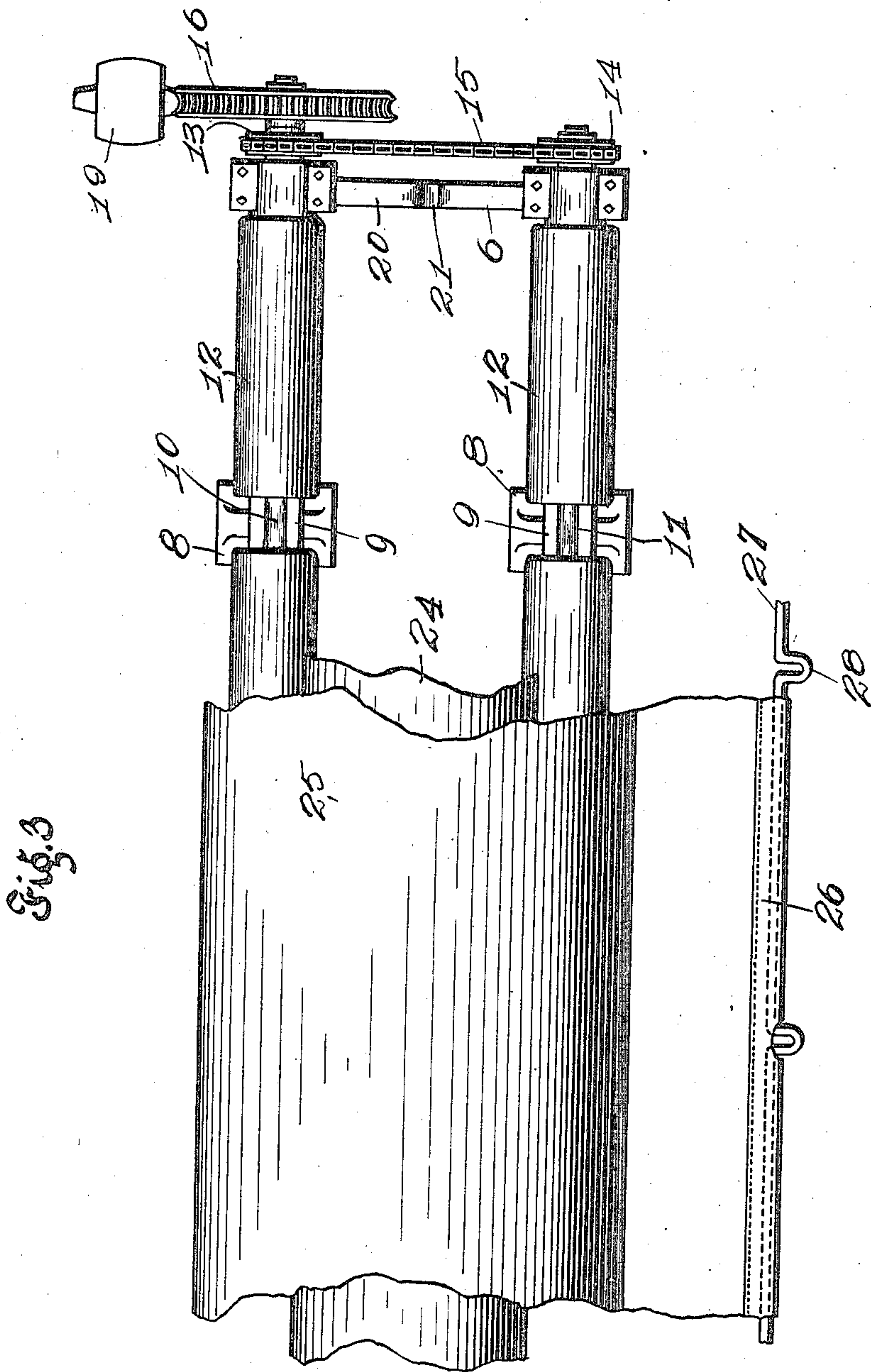
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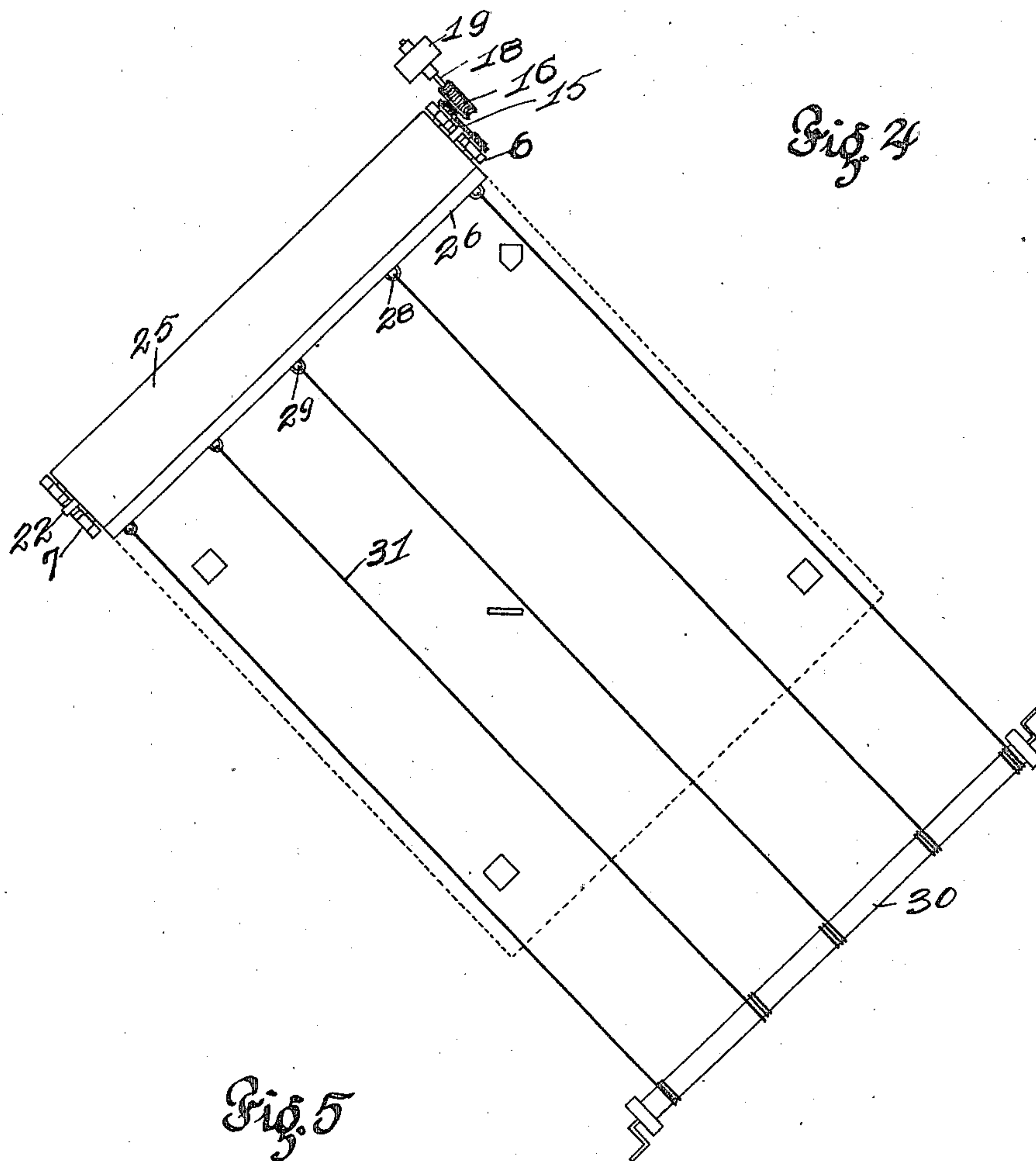


Fig. 4

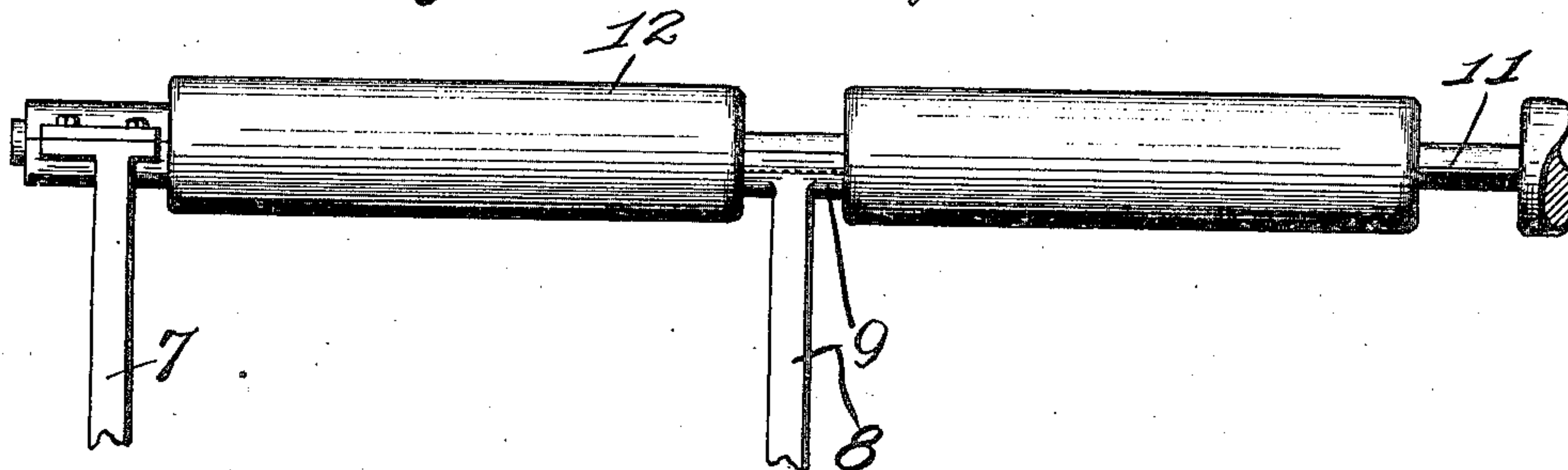


Fig. 5

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APPARATUS FOR CONTROLLING THE PLACEMENT OF A COVERING OVER BASE-BALL
DIAMONDS.

1,155,309.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed June 20, 1914. Serial No. 846,253.

To all whom it may concern:

Be it known that I, OTTO A. HECKEL, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Apparatuses for Controlling the Placement of a Covering Over Base-Ball Diamonds, of which the following is a specification.

This invention relates to improvements in an apparatus for controlling the placement of a covering over base-ball diamonds, and has for its object a roller on which the canvas is mounted, and a means for operating the roller to roll and unroll the same; and a means for conveying the unrolled portion of the covering over the space occupied by the base-ball diamond.

A further object of my invention is to construct a mechanism conveniently located on a proper site on the base-ball grounds, by which a covering such as canvas or the like is controlled so that the entire field or a portion thereof can be properly covered, and be protected against rain and the inclemency of the weather.

Figure 1, is an end elevation of my invention. Fig. 2, is a sectional view of the same. Fig. 3, is a top plan view with parts broken away showing the arrangement and general position of the several parts constituting the cover controlling mechanism. Fig. 4, is a top plan view showing the position of my invention in connection with a base-ball diamond. Fig. 5, is a detail view of one of the rollers made use of for supporting the covering when in the roll.

In carrying out my invention I provide a structure consisting of two end supports 6 and 7, the same being firmly and rigidly supported in position on the site selected; and between these end supports is located a plurality of journal braces 8, the upper end of which is provided with journal bearings 9, in which are supported shafts 10 and 11, on which are mounted rollers 12. The said journal braces are positioned a reasonable distance apart and on the shafts 10 and 11, supported with the same are located the rollers 12, which are arranged in sections as shown, each section occupying a space between the said journal braces. These rollers are secured on the shafts 10 and 11, so that

the rollers are simultaneously rotated with the manipulation of each shaft. On one end of the shafts 10 and 11, are located sprocket wheels 13 and 14, which are connected and simultaneously operated by a sprocket chain 15; and on the projecting end of the shaft 10, is located a worm wheel 16, which is placed in operation by a meshing worm 17, located on the motor shaft 18, driven by the usual motor 19. The side and end supports are each provided with a central upward projection 20, provided with an elongated slot 21; through these slots project trunnions 22, formed on the end heads 23, of a tubular roller 24. On this roller which extends from end to end of the structure is secured one end of the covering 25, which is preferably constructed of canvas or like resilient material, which is to be drawn over the surface of the base-ball diamond or park field. The free end 26, of the covering is suitably looped and hemmed as shown, and in the loop is located a strip of re-inforcing or stiffening material 27, provided with projecting eyes or loops 28, into which a hook 29 may be inserted for drawing the covering over the field. This drawing feature is accomplished by means of a windlass 30, located on the opposite side of the field, and said windlass is provided with suitable cables 31, to which the hooks 29, are attached. The relative position of the windlass with the cover supporting and controlling mechanism being shown in Fig. 4.

The purpose of the slots 21, in the central projection with the end supports is to provide vertical movement for the tubular roller 25, when the same is becoming increased or diminished during the rolling and unrolling of the covering. And the entire weight of the cover together with the roller being on the rollers 12, supported on the shafts 10 and 11.

In the illustration I show a motor for rolling and unrolling the covering on the tubular roller, and by means of the mechanism as shown, the shafts 10 and 11, are slowly rotated in the same direction and on account of the enormous weight of the covering on the roller supported by said shafts, the said roll of covering is slowly turned by the simultaneous movement of said rollers

12; and by this movement the material constituting the covering is either rolled up or unrolled depending upon the direction of the rotation of said rollers 12.

5 The windlass 30, which is used to operate in conjunction with pulling the unwound portion of the covering over the surface of the field to be protected, may be arranged in one or in a plurality of sections, each
10 operated independently by hand or by motor power, as found convenient. And by use of the windlass or windlasses this unwound portion of the covering is properly drawn in position over the field.

15 The essential feature of my invention is to provide a structure consisting of supporting rollers properly located and supported, and so positioned as to support and rotate a long roll of covering material; the entire
20 weight of the same being on said rollers so as to prevent the tubular roller from becoming bent or warped on account of its length. Another feature of this structure is that after the covering has been placed
25 over the field and should the same contain a certain amount of moisture after a rain, by rolling up the covering the weight of the same causes the forward roller to act as a wringer, and to remove the greater
30 portion of the moisture from the covering during the rolling up process. This entire apparatus may be built under the grand stand or bleachers of the park, and the covering be permitted to project through a slot
35 arranged in the front wall of the structure and in this manner be entirely out of view.

The operation of my invention is as follows: When it is desired to cover the baseball diamond, the cables of the windlass are
40 drawn forward and the hooks placed in the loops 28. The motor 19, is then operated and the mechanism is slowly turned unwinding the roller. At this junction, the windlasses are placed in rotation and by the
45 winding up of the cables the unwound or released portion of the covering is slowly drawn over the field at the distance required. And when sufficient amount of the surface is covered, the mechanism is stopped
50 and the canvas permitted to rest over the surface. When uncovering the same, the motor is placed in reversed action and the covering is then wound back in position on the tubular roller.

Having fully described my invention what I claim is: 55

1. A device of the class described comprising a tubular roller, a covering mounted thereon; a pair of supporting rollers and a means for rotating the same simultaneously
60 in order to roll and unroll the covering and a means for pulling the unrolled portion across the surface to be covered, substantially as specified.

2. A device of the class described comprising a frame; a roller adjustably mounted in said frame; a covering supported on said roller; a pair of rollers located in said frame and supporting the roller and the covering; a gear mechanism controlling the
70 movement of the supporting roller and unrolling the cover; and a means for assisting the placing of the unwound portion of the covering over the surface to be covered, substantially as specified. 75

3. A device of the class described comprising a frame; a slotted projection formed on each end of said frame; a tubular roller guided in the slotted projections; a covering mounted on said tubular roller; and supporting rollers mounted in bearings within
80 said frame for supporting the weight of the covering and for controlling the rolling and unrolling movement of the same; and a gear mechanism for rotating the supporting rollers, and means for drawing the unrolled portion of the cover over the surface to be covered, substantially as specified. 85

4. A device of the class described comprising a roll of covering arranged the required length of the surface to be covered; rollers supporting the roll of covering and for placing the same in motion for rolling and unrolling the same; and a gear mechanism for placing the rollers in simultaneous
90 rotation in combination with a windlass mechanism for assisting the movement and placing of the unwound portion of the covering over the surface, substantially as specified. 100

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

OTTO A. HECKEL.

Witnesses:

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