

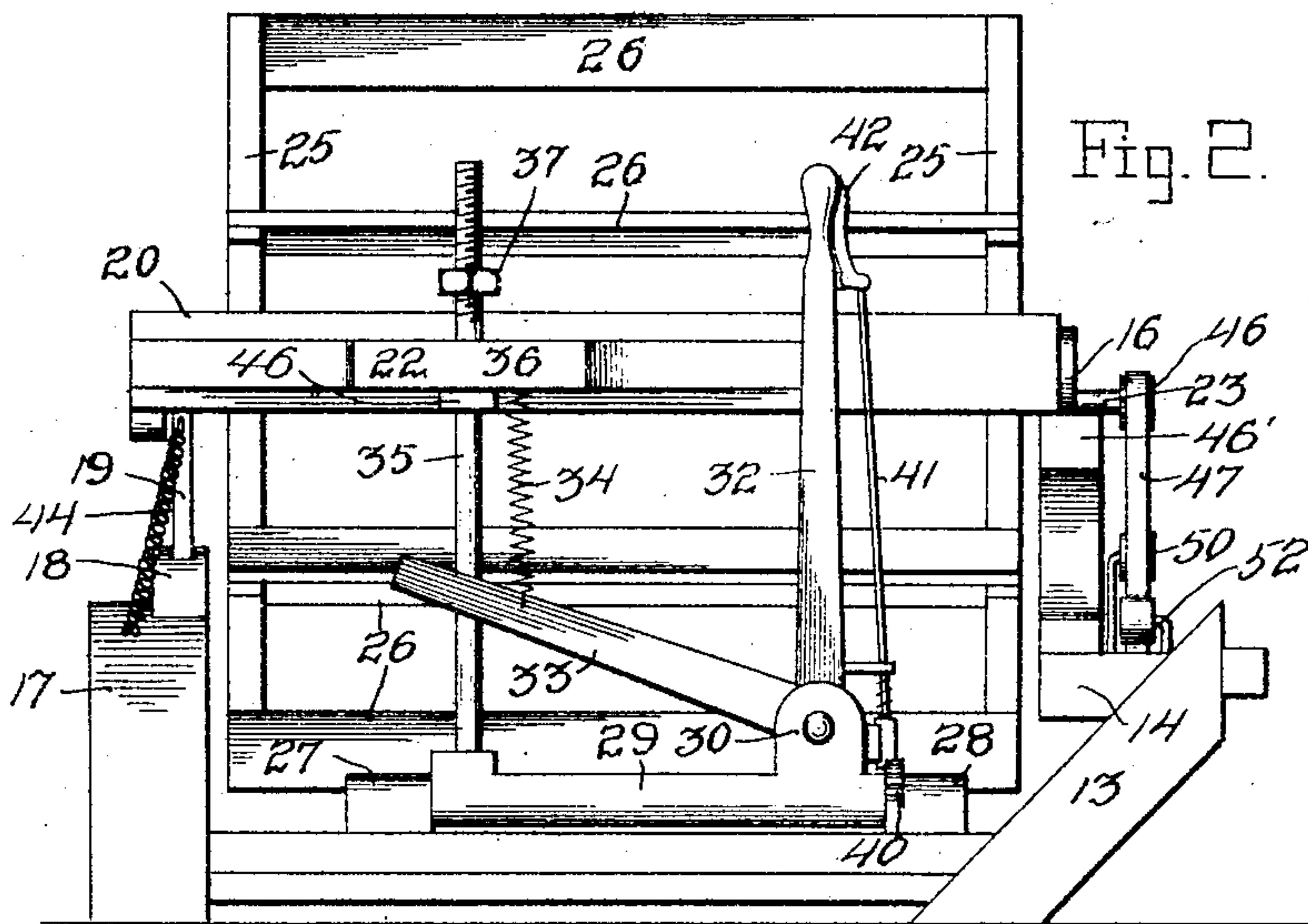
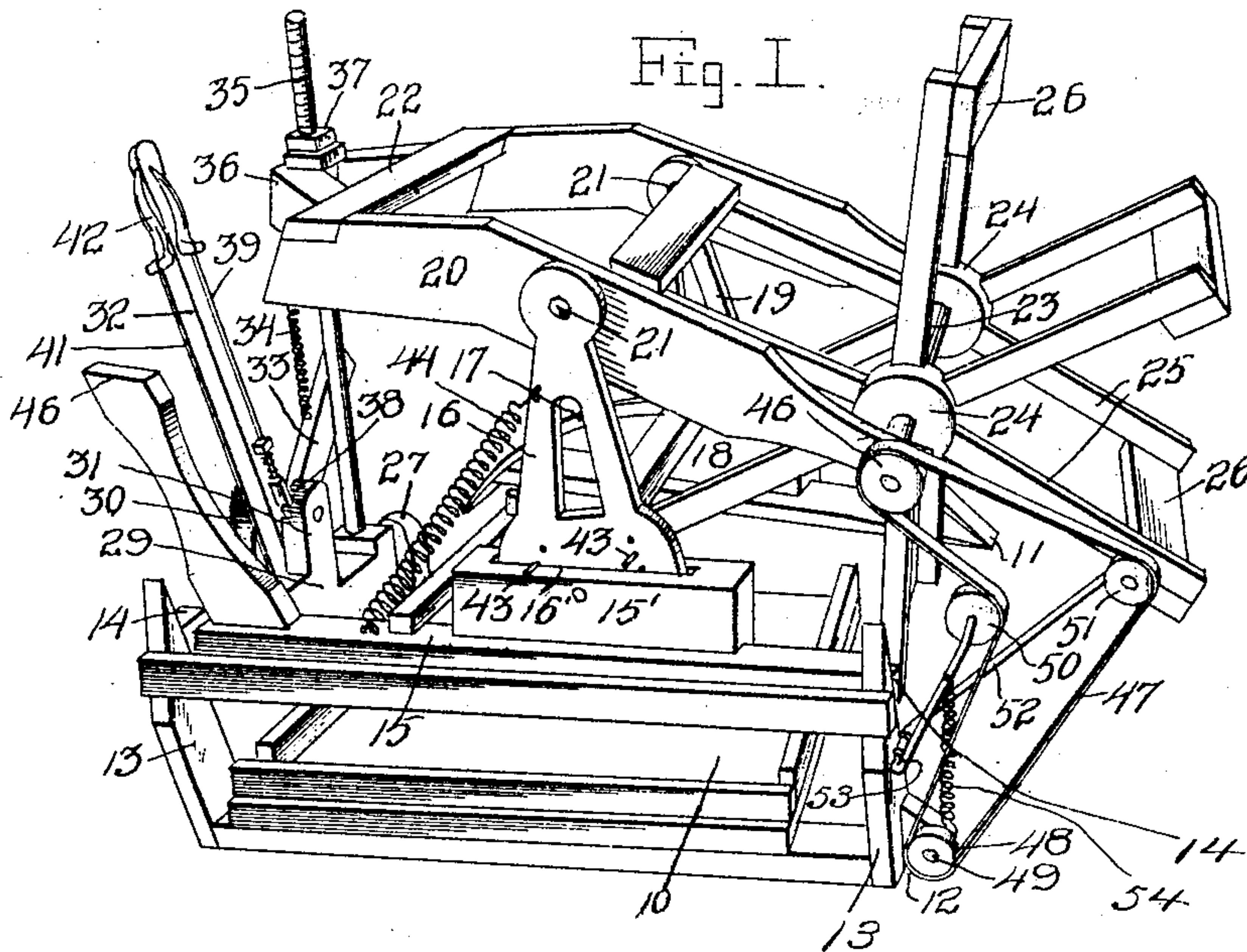
No. 779,884.

PATENTED JAN. 10, 1905.

R. R. SOBERG.  
BINDER REEL.

APPLICATION FILED JULY 25, 1904.

2 SHEETS—SHEET 1.



Witnesses  
C. K. Reinhardt.  
W. C. Hayes.

Inventor  
R. R. Soberg.  
by  
Charles Chandler  
Attorneys.

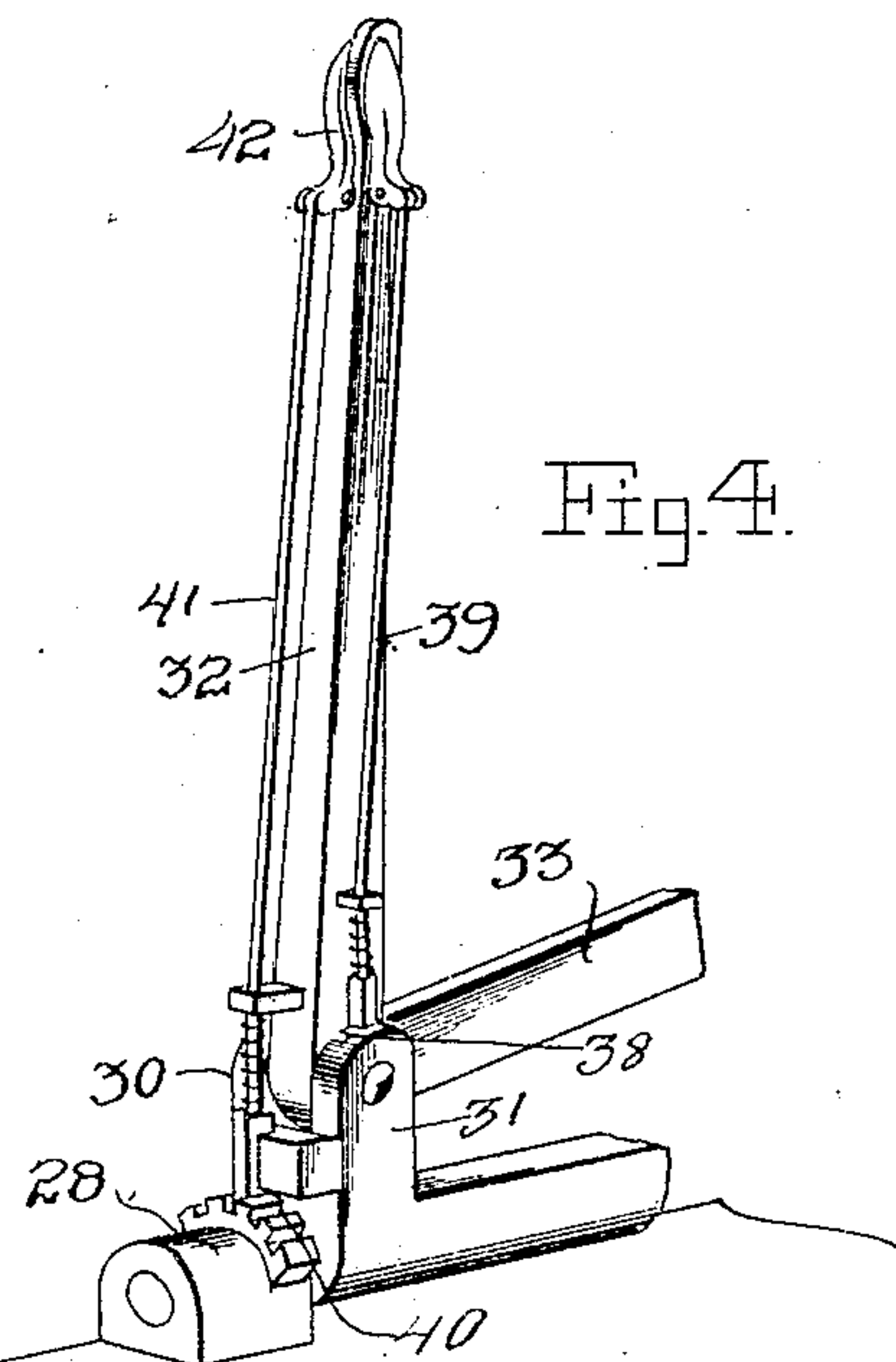
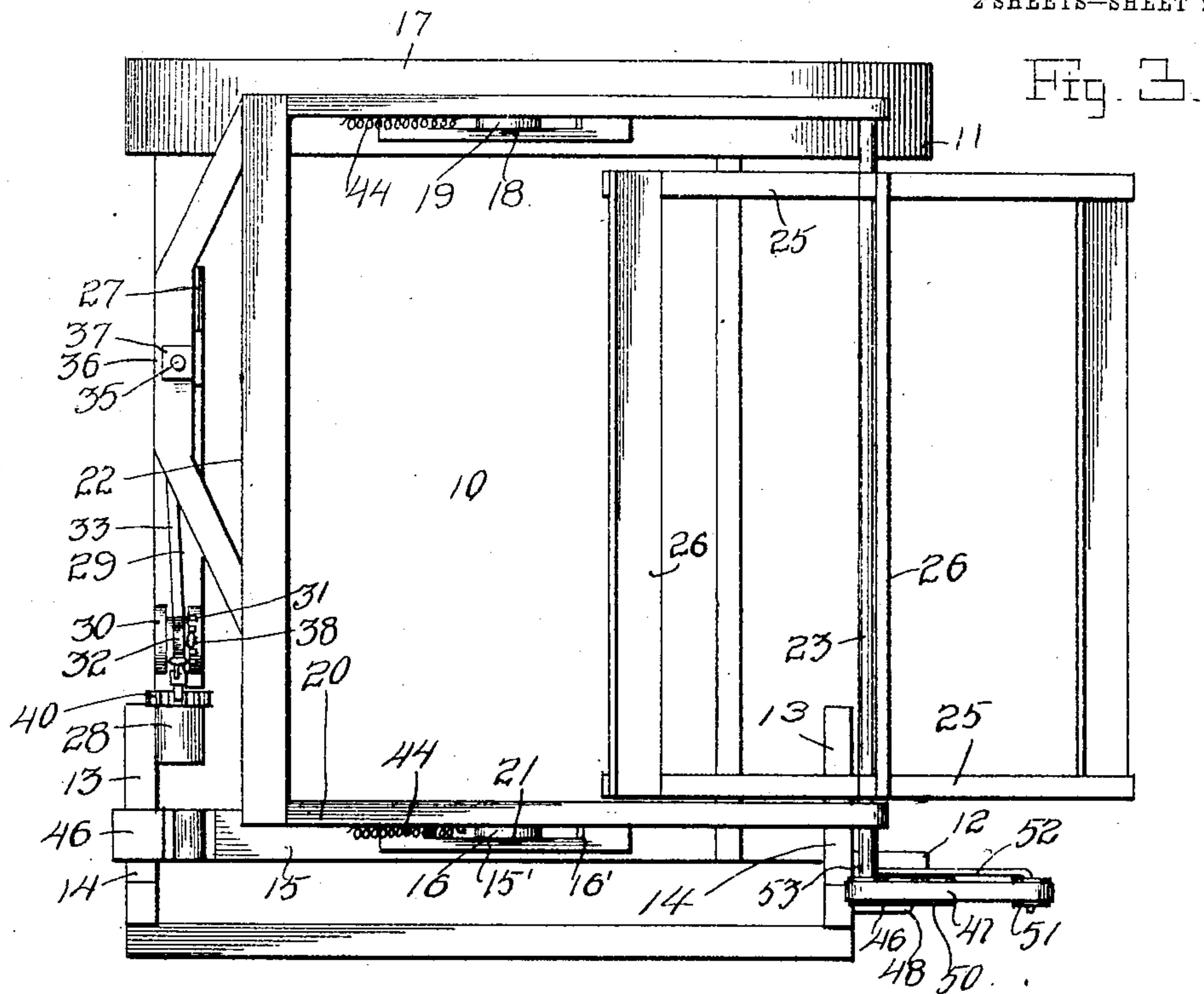
No. 779,884.

PATENTED JAN. 10, 1905.

R. R. SOBERG.  
BINDER REEL.

APPLICATION FILED JULY 25, 1904.

2 SHEETS—SHEET 2.



Witnesses  
C. K. Reinhardt.  
W. C. Keyes.

Inventor  
R. R. Soberg.  
Charles J. Chandler  
Attorneys



# UNITED STATES PATENT OFFICE.

REIMER R. SOBERG, OF CHURCHS FERRY, NORTH DAKOTA.

## BINDER-REEL.

SPECIFICATION forming part of Letters Patent No. 779,884, dated January 10, 1905.

Application filed July 25, 1904. Serial No. 218,077.

*To all whom it may concern:*

Be it known that I, REIMER R. SOBERG, a citizen of the United States, residing at Churchs Ferry, in the county of Ramsey, State of North Dakota, have invented certain new and useful Improvements in Binder-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 reels for binders and similar implements; and it has for its object to provide a construction wherein by operation of a single lever the reel may be shifted horizontally over the sickle and may be also shifted vertically to change its elevation.

Further objects and advantages of the invention have reference to details of structure which facilitate operation of the implement under different conditions, said objects and advantages being evident from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing a portion of a binder-platform provided with a reel embodying the present invention. Fig. 2 is a rear elevation of the structure shown in Fig. 1. Fig. 3 is a top plan view. Fig. 4 is a detail view showing the shifting lever and its mounting, together with the means for holding it in its shifted position.

Referring now to the drawings, there is shown a portion of a harvester-platform 10, from which projects forwardly the shoes 11 and 12, that carry the sickle, which latter is of the usual construction and need not be shown. From the platform 10 extend the usual frame members 13, which reach over the bull-wheel and over which runs the conveyer that carries the cut grain to the binding mechanism, these parts being well known and requiring no description and, in fact, forming no part of the present invention.

The members 13 are provided with supports 14, in which is mounted a bar 15, upon which is a socket-piece 15', having a slot 16', in which is pivoted the base of a pillow-block 16. Upon the outer end of the platform 10 is an arch

17, which carries the socket-piece 18, which is slotted to receive the lower end of a pillow-block 19, which is pivoted therein, these pillow-blocks being adapted to swing with their upper ends toward and away from the front edge of the platform 10.

The bearings of the pillow-blocks align, and in connection therewith is provided a yoke-frame 20, having trunnions 21, which engage said bearings. The extremities of the yoke-frame extend over the front edge of the platform, while the bight portion 22 extends over the rear edge portion of the platform.

In the ends of the yoke-frame are bearings that receive the shaft 23, carrying hubs 24, from which radiate the arms 25 of the reel proper, said arms having the connecting cross-pieces 26.

At the rear of the platform 10 are the pillow-blocks 27 and 28, in which is mounted a rocker 29, carrying the upwardly-directed spaced ears 30 and 31, between which is pivoted the angular lever comprising the upwardly-directed handle portion 32 and the laterally-extending foot 33. The weight of the reel proper holds the forward end of the yoke-frame 20 in lowered position when the frame is released, and to hold the latter with the reel proper in raised position a helical spring 34 is connected at one end to the foot 33 of the angular lever, while its opposite end is attached to the bight portion 22 of the yoke-frame. When the angular lever is shifted in one direction, the tension of the spring is increased to raise the reel proper, and when the lever is shifted in the opposite direction the reel is lowered, the reel being supported yieldably at all times, so that in its operation it is not affected by rough ground. From the rocker 29 there extends upwardly a post 35, which is engaged slidably through the enlargement 36 of the bight portion of the yoke-frame, said post being threaded at its upper end portion and provided with a nut 37, which is adjustable thereon and serves as a stop to limit the upward movement of the bight portion of the yoke-frame and corresponding downward movement of the reel proper. To hold the angular shaft against pivotal movement between the ears 30 and 31, the latter is



provided with a notched segment 38 for engagement by a thumb-latch 39 upon the handle portion 32 of the angular lever.

With the construction above described it will be understood, furthermore, that if pressure be applied to the handle portion 32 of the angular lever in the direction of the front edge of the platform the rocker 29 will be correspondingly shifted, and through the medium of the post 35 the yoke-frame will be pressed in the direction of the front edge of the platform and will carry the reel proper with it. To hold the rocker 29 at different points of its movement, a notched segment 40 is provided upon the pillow-block 28, and with it coöperates a thumb-latch 41, mounted upon the ear 38 and having an operating-handle 42 upon the handle member of the lever.

The pillow-blocks 16 and 19 are provided with stop-pins 43, which alternately engage the corresponding socket-pieces and limit the pivotal movement of the pillow-block. Helical springs 44, connected to the upper end portions of the pillow-blocks and to the rear portions of the bar 15 and arch 17, respectively, hold the yoke-frame yieldably at the rearward limit of its movement. Downward movement of the bight portion of the yoke 20 is limited by the stops 46 beneath the bight portion thereof.

To rotate the reel-shaft 23, it is provided at one end with a pulley-wheel 46', over which passes an endless belt 47, that passes also over a driving-pulley 48, mounted upon a shaft 49, which may be driven from the conveyer mechanism or in any other suitable manner. Two idler-pulleys 50 and 51 are provided and are mounted upon the laterally-turned ends of a U-shaped support 52, the bight portion 53 of which is pivotally-mounted in horizontal position upon the front face of the front arch 13. The belt passes over the idlers 50 and 51 and is held under tension thereby by reason of a helical spring 54, which is attached at one end to the shoe 12 and at its opposite end to one end of the U-shaped hanger.

With the above-described construction it will be understood that the efficiency of the ap-

paratus will not be affected by rough ground and also that the parts may be easily and quickly adjusted without any considerable inconvenience to the operator.

What is claimed is—

1. In an apparatus of the class described, the combination with a platform having cutting mechanism, of pillow-blocks rockingly mounted for movement toward and away from the cutting mechanism, a yoke-frame having trunnions mounted in the pillow-blocks, a reel journaled in the yoke-frame, a rocker, connections between the rocker and the yoke-frame, a lever mounted upon the rocker for movement longitudinally of the latter only, connections between the lever and yoke-frame for movement of the latter on its trunnions, means for holding the rocker against movement, means for holding the lever against movement and means for rotating the reel.

2. In an apparatus of the class described, the combination with the platform having cutting mechanism at its front edge, of pillow-blocks rockingly mounted for movement toward and away from the cutting mechanism, means for holding the pillow-blocks yieldably retracted, a yoke-frame having trunnions mounted in the pillow-block, a reel mounted in the yoke-frame, means for rotating the reel, a rocker mounted at the rear of the frame, a post carried by the rocker and slidably engaged with the bight portion of the yoke-frame, means for limiting the sliding movement of the yoke-frame with respect to the post, a lever pivoted to the rocker and movable in a plane longitudinally thereof and under the influence of which the rocker is adapted to be rocked, yieldable connections between the lever and the yoke-frame for swinging the latter upon its trunnions and separate means for holding the lever and rocker against movement.

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

REIMER R. SOBERG.

Witnesses:

OSCAR SOBERG,

H. A. MOE.