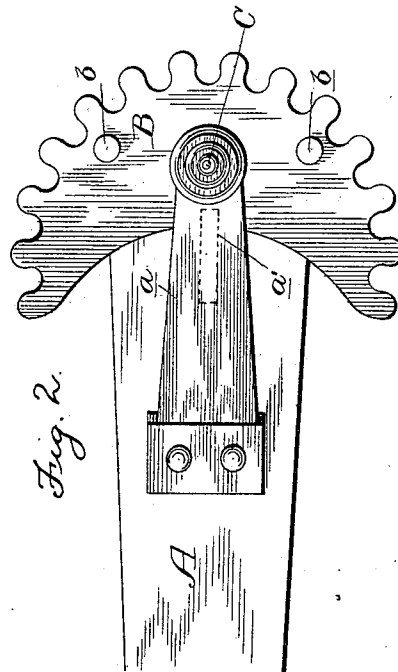
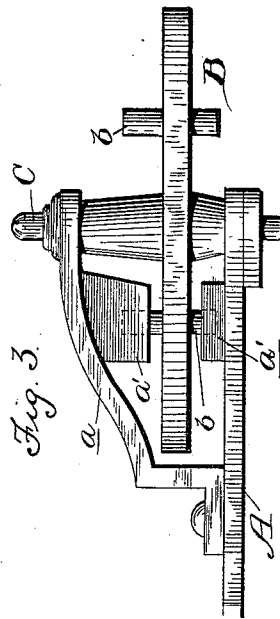
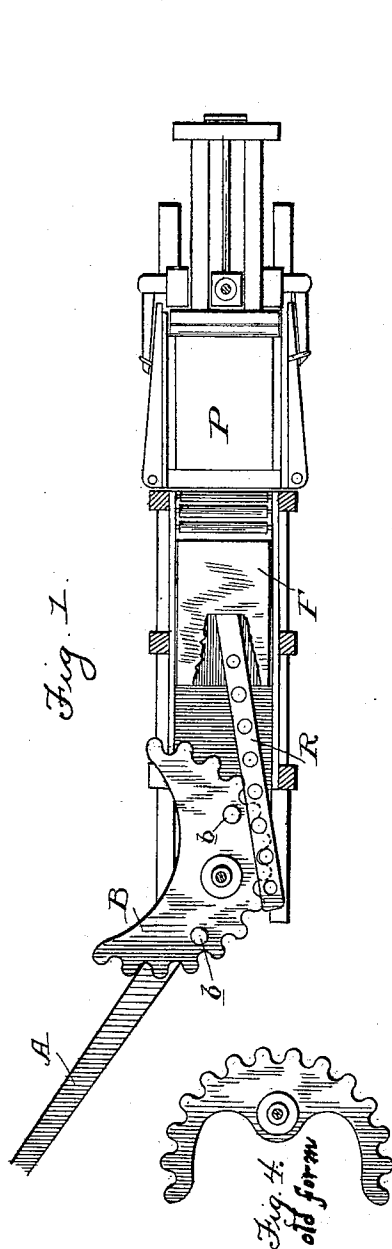


(No Model.)

A. WICKEY.
BALING PRESS.

No. 463,673.

Patented Nov. 24, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW WICKEY, OF CHICAGO, ILLINOIS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 463,673, dated November 24, 1891.

Application filed February 20, 1890. Serial No. 341,120. (No model.)

To all whom it may concern:

Be it known that I, ANDREW WICKEY, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Baling-Presses, of which the following is a description.

This invention relates to a class of baling-presses such as is shown in Letters Patent of the United States No. 247,974, granted to A. A. Gehrt and myself on the 4th day of October, 1881. That patent shows a press wherein the follower is operated by means of a rack-bar or pitman meshing with a cogged segment actuated by a reciprocal movement of the sweep to which the horses are attached. This cogged segment requires considerable range of movement, inasmuch as it works the pitman from both sides toward a dead-center, and after passing such center the pitman is automatically thrown back by the pressure of the hay or cotton upon the follower. If the segment were made rigid with the sweep, the horses would have to travel through as long an arc as the segment does; but the segment is pivoted upon the sweep and allowed a certain amount of lost motion thereupon, so that as soon as the dead-center is passed the horses need go no farther in that direction, the lost motion of the segment allowing the follower to be withdrawn to the proper position, so that the horses can be turned about and commence their return from that point. To give the segment this freedom of motion upon the sweep it has heretofore been thought necessary to make it much slighter and weaker at certain points than desirable to insure proper security from breakage. My invention is designed to overcome this defect, which I accomplish by the means illustrated in the accompanying drawings, in which—

Figure 1 is a plan, partly in section, of a press like that shown in the patent above referred to, but constructed according to my improvement. Fig. 2 is a plan showing my improvement on a larger scale. Fig. 3 is a side elevation of the parts shown in Fig. 2 on a similar scale, but with the segment at right angles to the position shown in said figure. Fig. 4 is a plan of the segment now in common use.

Referring to the drawings, whereon like let-

ters refer to similar parts, A is the sweep to which the horses are attached, and B the cogged segment, which is pivoted between the sweep A and a strap *a* by means of the pivot-pin C, about which it turns to give the lost motion above referred to. The segment operates the follower F of the press P by the rack R, as in the aforesaid patent. In the form of segment shown in the patent the extreme ends of the segment struck against a pin on the sweep, and these ends were often broken by the sudden jar when they came in contact with the pin. Since the patent was granted it was found in practical use that the form of the segment should be changed so as to make it rather more than semicircular, while in the patent the arc of the segment formed but a trifle over a third of a circle. When this new form of segment was used, it was found necessary to bring the pin against which it struck nearer to the pivotal pin and make the segment in the form indicated in Fig. 4, leaving a horn extending at each end, which has been found to endanger its strength and durability, many cases of fracture near the point where the segment strikes the pin having come under my notice. To avoid this breakage I make the segment in the shape shown in Figs. 1 and 2 and provide the same with pins *b*, which may be either cast with it or set therein. On the sweep A and strap *a* I make lugs or projections *a'*, with which the pins *b* come in contact as the segment swings around, which projections are long enough to be sure to engage with the pins *b*, but leaving sufficient space between them for the passage of the web of the segment. It may be sufficient in some cases to provide pins upon only one face of the segment instead of on both the upper and lower faces. Only one of the lugs *b'* will then be required. The precise form and location of the pins *b* and lugs *a'* are immaterial, the essential thing being that the lugs *a'* or other abutments substituted therefor shall not interfere with lugs or the free rotation of the segment, and thus necessitate the weakening of the same by cutting away a portion thereof, and that the pins *b* be placed in position to engage the lugs and prevent the rotation of the segment upon the sweep beyond the point desired. It will be observed that this arrangement of the parts

allows two or more of the segment-teeth at each end of the series of teeth to cross the center line of the sweep, and thus, without weakening of the segment, as in the construction shown in Fig. 4, it has much more motion independently of the sweep than where the stop comes in contact with a portion of the segment in the same horizontal plane with the teeth, as has heretofore been proposed.

10 What I claim as new is—

1. The combination, in a baling-press and with the follower and pitman thereof, of a sweep provided with a stop, a segment constructed to move independently of said sweep and having a series of teeth arranged on its outer curve, one or more of which at each end of the curve crosses the center of said sweep and having fixed stops on the body of said segment arranged to come in contact with the stop on the sweep and projecting from a part of the web that travels past said stop, and suitable devices connecting said pitman and segment, substantially as described.

2. The combination, in a baling-press and with the rack, pitman, and follower thereof,

of a sweep provided with a stop, a segment having teeth engaging with the teeth of the pitman and provided with fixed stops arranged to engage with the stop on the sweep and formed on a part of the web that travels past said stop, and suitable devices connecting said pitman and segment, substantially as described.

3. The combination, in a baling-press and with the follower thereof, of a rack-pitman R, connected to the follower, and a segment B for operating said rack, having fixed pins *b* projecting from its face substantially in line with the center on which said segment turns and teeth thereon arranged on a curve partially surrounding said pins, with the sweep A and strap *a*, both sweep and strap having inwardly-projecting lugs *a'* traveling over and under the body of said segment and engaging with the pins *b*, all substantially as shown and described.

ANDREW WICKEY.

Witnesses:

T. S. E. DIXON,
E. W. WICKEY.