

P. C. INGERSOLL.  
Hand-Power Baling-Presses.

No 144,982.

Patented Nov. 25, 1873.

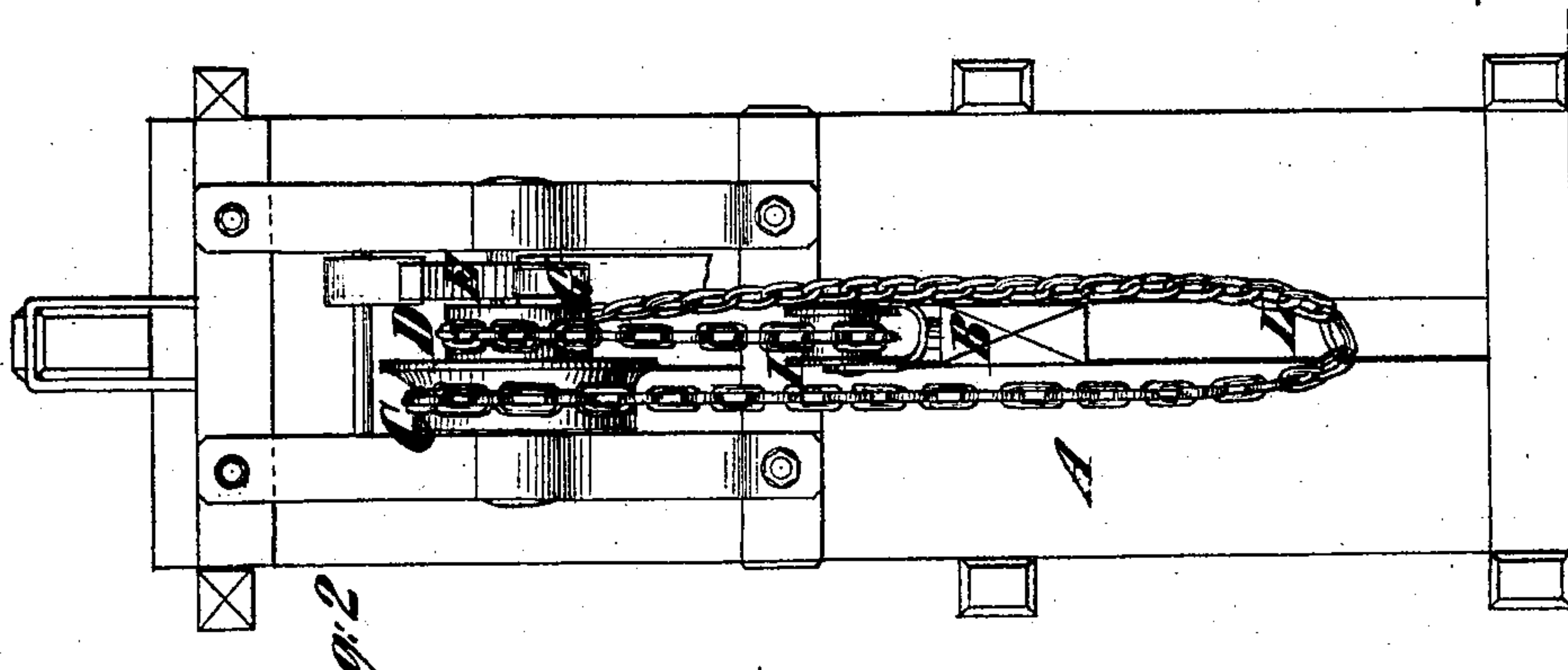


Fig. 2

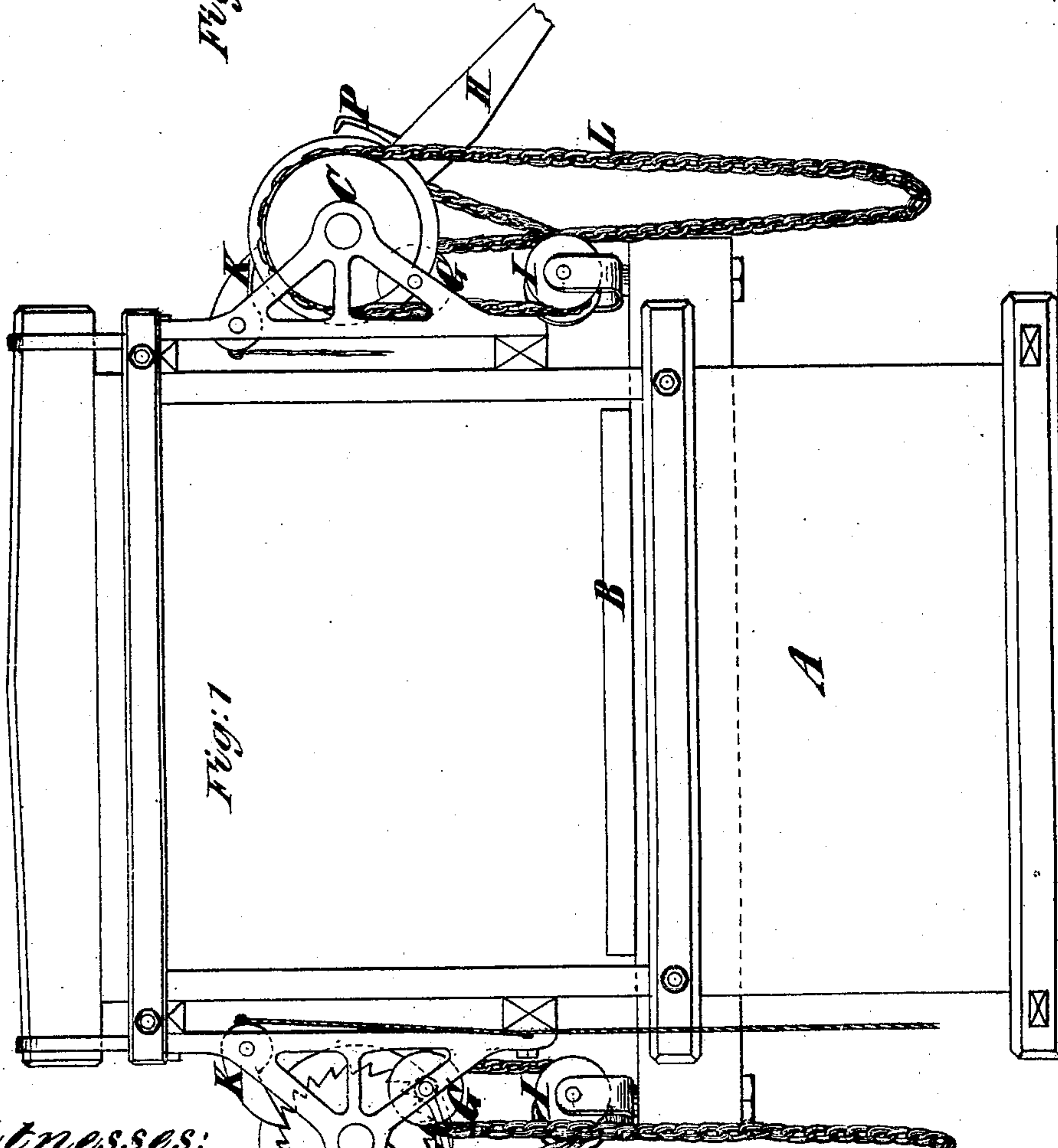


Fig. 1

Witnesses:  
Michael Ryan  
Fred Hays

P. C. Ingersoll  
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# UNITED STATES PATENT OFFICE.

PLATT C. INGERSOLL, OF GREEN POINT, NEW YORK.

## IMPROVEMENT IN HAND-POWER BALING-PRESSES.

Specification forming part of Letters Patent No. **144,982**, dated November 25, 1873; application filed August 4, 1873.

*To all whom it may concern:*

Be it known that I, PLATT C. INGERSOLL, of Green Point, Brooklyn, in the county of Kings and State of New York, have invented an Improved Hand-Power Baling-Press, of which the following is a specification:

This invention consists in the combination of differential pulleys, pulleys on the draft-beam, endless chains, ratchets, levers furnished with pawls that engage with the ratchets, and stop-pawls, whereby is obtained a very simple and effective hand-power press, which can be operated very speedily.

In the accompanying drawing, Figure 1 is a side view of the press, and Fig. 2 is an end view of the same.

Similar letters of reference indicate corresponding parts in both figures.

A is the frame of the press. It is of the usual form, consisting simply of an open-sided box. It is fitted with a compression-head or follower, B, which is furnished with a draft-beam, to which the power is applied. On the sides of the frame A, near the top, are differential pulleys C and D, which are recessed in their peripheries to receive the links of a chain, and are made fast to shafts, which are likewise furnished with ratchet-wheels E. Endless chains L L pass around these pulleys C D, and around pulleys I on the draft-beam. They pass from the larger pulleys C down under the pulleys I on the draft-beam, and thence up over the smaller pulleys D in the opposite direction, and the ends depending from both the pulleys C D are united. In order to overcome the difficulty experienced with differential pulleys and chains of insuring the entrance of the chain links into the proper notches of the smaller of the pulleys, I attach to the framing of the press, under each of the smaller pulleys D, a guide-pulley, G, arranged to guide in such manner the portion of the chain which is passing onto the pulley D that the chain hugs the greater portion of the circumference of the said pulley, and will not fail to enter the proper notches therein as it commences to pass thereon. Near

the ratchet-wheels E levers H are pivoted to the shafts of the pulleys. These are furnished with pawls P, having hooked ends, that engage with the teeth of the ratchets, and connect the levers thereto while they are being moved downward. When the levers are moved upward, these pawls play over the ratchet-teeth and take a new hold. Above the ratchets stop-pawls K K are arranged to hold the ratchets while the levers are being manipulated to take a new hold. In order that the levers, when disconnected from the ratchets, may not hang down in the way, I pivot braces J to the shafts of the guide-pulleys, so that they may be raised to support the levers in an approximately horizontal position, as shown in the drawing.

The follower of the press is brought up to compress the article to be baled by rotating the differential pulleys through the medium of the levers H. The chain, by this means, is wound upon the larger pulley C much faster than it is unwound from the smaller pulley D, so that the follower is raised very rapidly.

When desirable to operate the press more quickly, the levers may be supported by the braces, and the follower may be worked by hauling on the chains till the final compression is to be made, and then the levers may be brought into service again. Likewise, the follower may be lowered by manipulating the chains, so that the whole operation of the press may be effected very speedily.

What I claim as my invention is—

1. The pulley G for guiding the chain L, in combination with the pulleys C D I, for operating the follower B of a press, substantially as described.

2. The differential pulleys C D and ratchet and pawl E K, in combination with the pulley I, guide-pulley G, and follower B, substantially as and for the purpose described.

P. C. INGERSOLL.

Witnesses:

MICHAEL RYAN,  
FRED. HAYNES.