

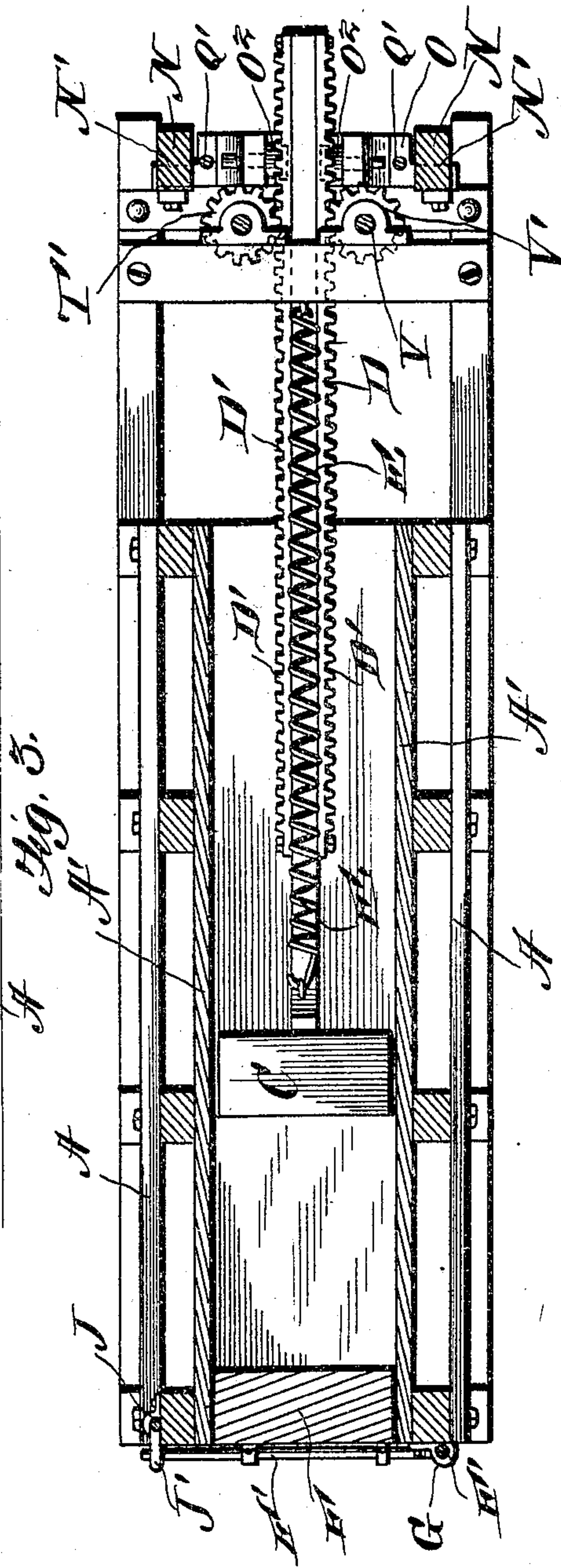
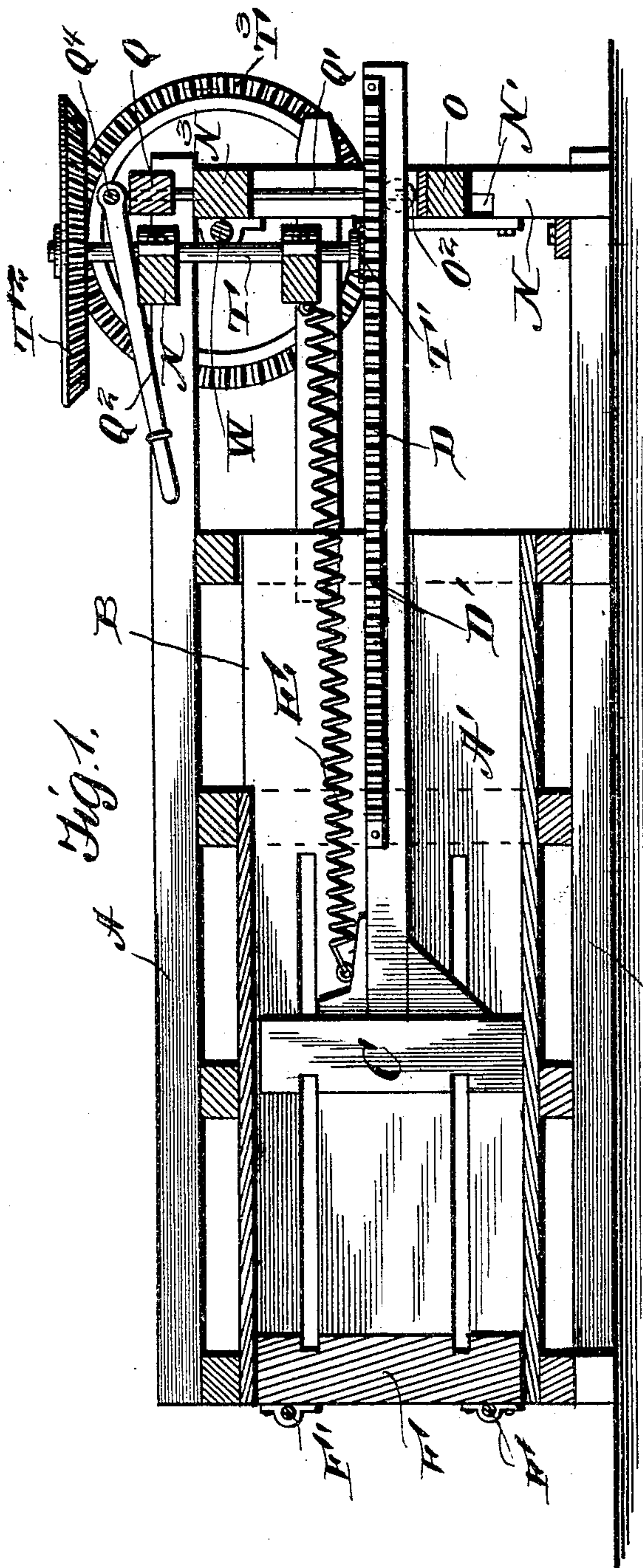
No. 791,948.

PATENTED JUNE 6, 1905.

J. B. SAVELL.
BALING PRESS.

APPLICATION FILED FEB. 2, 1905.

2 SHEETS—SHEET 1.



Witnesses

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BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 791,948, dated June 6, 1905.

Application filed February 2, 1905. Serial No. 243,865.

To all whom it may concern:

Be it known that I, JOHN BURGESS SAVELL, a citizen of the United States, residing at Hogansville, in the county of Troup and State of Georgia, have invented certain new and useful Improvements in Baling-Presses; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in baling-presses; and the object of the invention is to produce a simple and efficient press of the reciprocating-plunger type in which means is provided for throwing the teeth upon the opposite edges of the plunger-beam into engagement with gear-wheels, one of which is adapted to impart a longitudinal movement to the plunger.

The invention consists, further, in various details of construction and in combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings—

Figure 1 is a longitudinal sectional view through my improved press. Fig. 2 is a front elevation. Fig. 3 is a transverse sectional view. Fig. 4 is a rear view of the apparatus, and Fig. 5 is a detail view.

Reference now being had to the details of the drawings by letter, A designates the frame of the press, which may be of any suitable construction and provided with a box A', having an opening B, in which the material to be baled is inserted.

C designates the plunger, which is adapted to travel upon the upper surface of the bottom of the press-box, and D designates the plunger-beam, which has series of rack-teeth D' upon the opposite edges thereof. A spring E is fixed at one end to said beam, and its other end is fastened to the frame of the press, the object of said spring being to retract the

plunger-beam, which has been driven forward by the mechanism which will be presently described.

The rear end of the press-box is provided with a swinging door F, mounted upon a hinge F', which hinge swings upon pivotal eyes G upon the frame of the box, while the free ends of the hinge project beyond the free swinging edge of the door and also beyond the adjacent side of the press-box when the door is closed, and said ends of the hinge are adapted to be engaged by the loops J' of the bar J, which is pivotally mounted upon the side of the press-box. The upper end of said bar J is bent to form a handle J², whereby the same may be conveniently rocked in its bearings.

O is a vertically-movable cross-piece, the ends of which are mounted in slots N' in the posts N of the apparatus, and said cross-piece O carries an antifriction-roller O², upon which the under face of the plunger-beam rests and travels.

Q designates a bar which normally rests upon the cross-piece N³ of the press-frame, and Q' designates rods which are fastened to said bar Q at their upper ends, and their lower ends are fastened to the cross-piece O. A lever Q² is fulcrumed over the cross-piece N³ of the press-frame, and one end of said lever Q² is connected to the eye Q⁴ upon the cross-piece Q, said lever being provided for the purpose of raising the bars Q and O and also the plunger-beam having rack-teeth upon the opposite edges thereof.

T designates a vertical rotatable shaft, which is mounted in suitable bearings in the frame of the press, and the lower end of said shaft has fixed thereto a gear-wheel T', which is adapted to be in mesh with the teeth upon one edge of the plunger-beam when the latter is raised to its highest limit. A gear-wheel T² is fixed to the upper end of the shaft T and is in mesh with a driving-wheel T³, fixed to a shaft W, journaled in suitable bearings upon the frame of the apparatus. A handle S is fixed to each end of the shaft carrying the driving-wheel, whereby the same may be operated.

V designates a vertically-mounted idler-shaft mounted in suitable bearings and hav-

ing a gear-wheel V' at its lower end, which is adapted to mesh with teeth upon one edge of the plunger-beam.

The operation of my apparatus is as follows: When it is desired to drive the plunger forward, the operator depressing the lever Q² will raise the plunger-beam, so that it will engage the pinion-wheels upon the vertical rotatable shaft, after which by rotating the operating-wheel the plunger may be driven forward and the material in the press-box compressed, and by lowering the plunger-beam out of mesh with said gear-wheels the spring fixed to said beam will quickly retract the plunger to its starting position without the waste of time incident to the reverse rotary movement of the driving apparatus.

While I have shown a particular form of apparatus illustrating my invention, it will be understood that I may vary the details of the same, if desired, without in any way departing from the spirit of the invention.

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

1. A baling-press comprising a press-box, a frame, a rebounding plunger, a plunger-beam having rack-teeth upon the opposite edges thereof one end of said beam adapted to have a vertical movement, a vertical rotatable shaft, a gear-wheel fixed thereto and adapted to mesh with teeth in one edge of said plunger-beam as the latter is raised, and means for raising said plunger-beam, as set forth.

2. A baling-press comprising a press-box, a frame, a rebounding plunger, a plunger-beam having rack-teeth upon the opposite edges thereof one end of said beam adapted to have a vertical movement, a vertically-movable cross-piece, guideways in which the same works, said plunger-beam supported by said cross-piece, a horizontally-rotatable gear-

wheel, means for driving the same, and mechanism for raising said cross-piece whereby the teeth of the plunger-beam may mesh with the teeth of said gear-wheel, as set forth.

3. A baling-press comprising a press-box, a frame, a rebounding plunger, a plunger-beam having rack-teeth upon the opposite edges thereof one end of said beam adapted to have a vertical movement, a cross-piece mounted in vertical posts of the frame and guided therein, a bar mounted upon the top of the press-frame, rods connecting said bar and cross-piece, a lever fulcrumed over a portion of the press and adapted to raise said bar, cross-piece and plunger-beam mounted upon the latter, and a horizontally-rotating gear-wheel adapted to mesh with the teeth of said plunger-beam as the latter is raised, as set forth.

4. A baling-press comprising a box, a rebounding plunger having a beam with rack-teeth upon the opposite edges thereof one end of said beam adapted to have a vertical movement, a cross-piece mounted in suitable guides upon the upright posts of the frame, an anti-friction-wheel mounted upon said cross-piece and upon which said plunger-beam rests, a cross-bar mounted upon the top of the press-frame, rods connecting said cross-bar and cross-piece, a lever fulcrumed over a portion of the frame of the press and connected to said cross-bar, vertical rotatable shafts, gear-wheels fixed upon said shafts, a driving-wheel, geared connections between the same and one of said shafts, and means for operating said driving-wheel, as shown and described.

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

JOHN BURGESS SAVELL.

Witnesses:

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W. C. MATTHEWS.