

(No Model.)

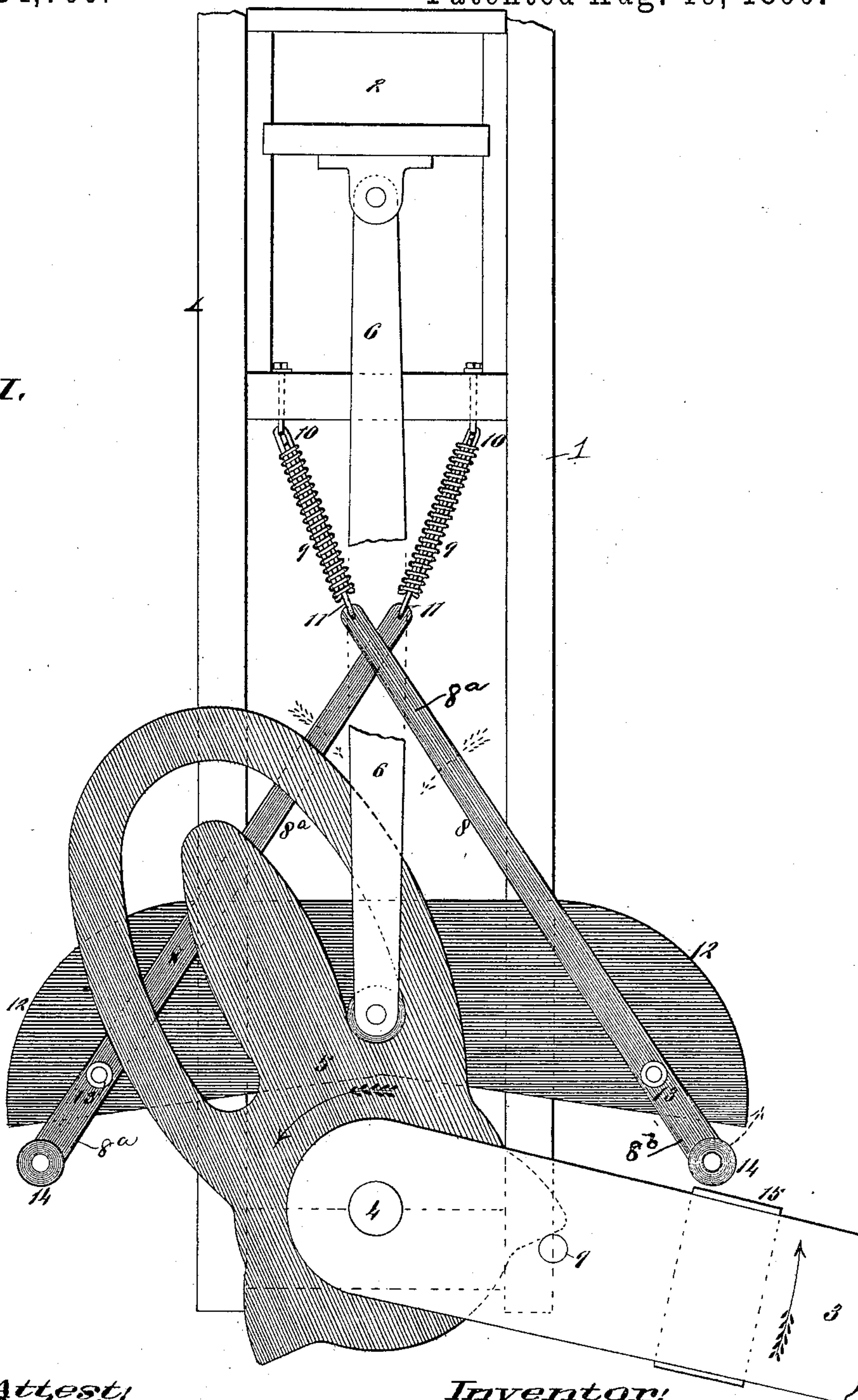
2 Sheets—Sheet 1.

J. W. BROWN & A. A. GEHRT.
BALING PRESS.

No. 434,760.

Patented Aug. 19, 1890.

Fig. I.



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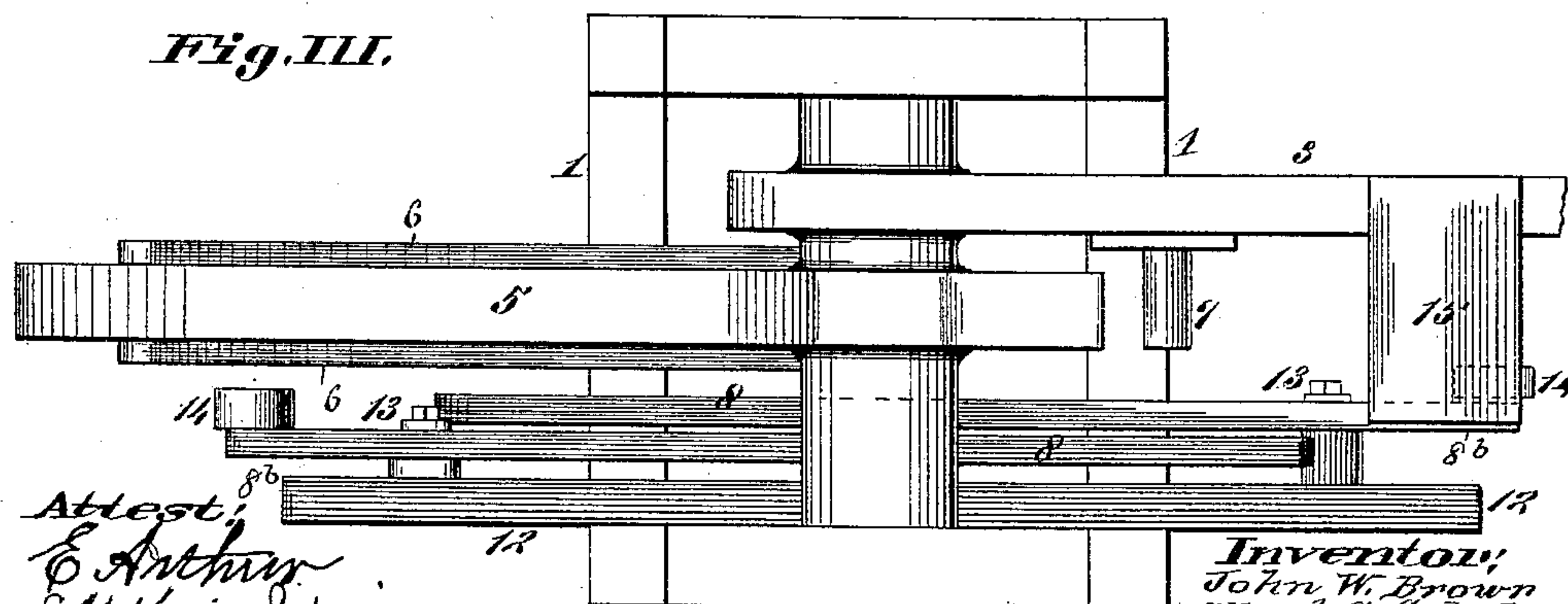
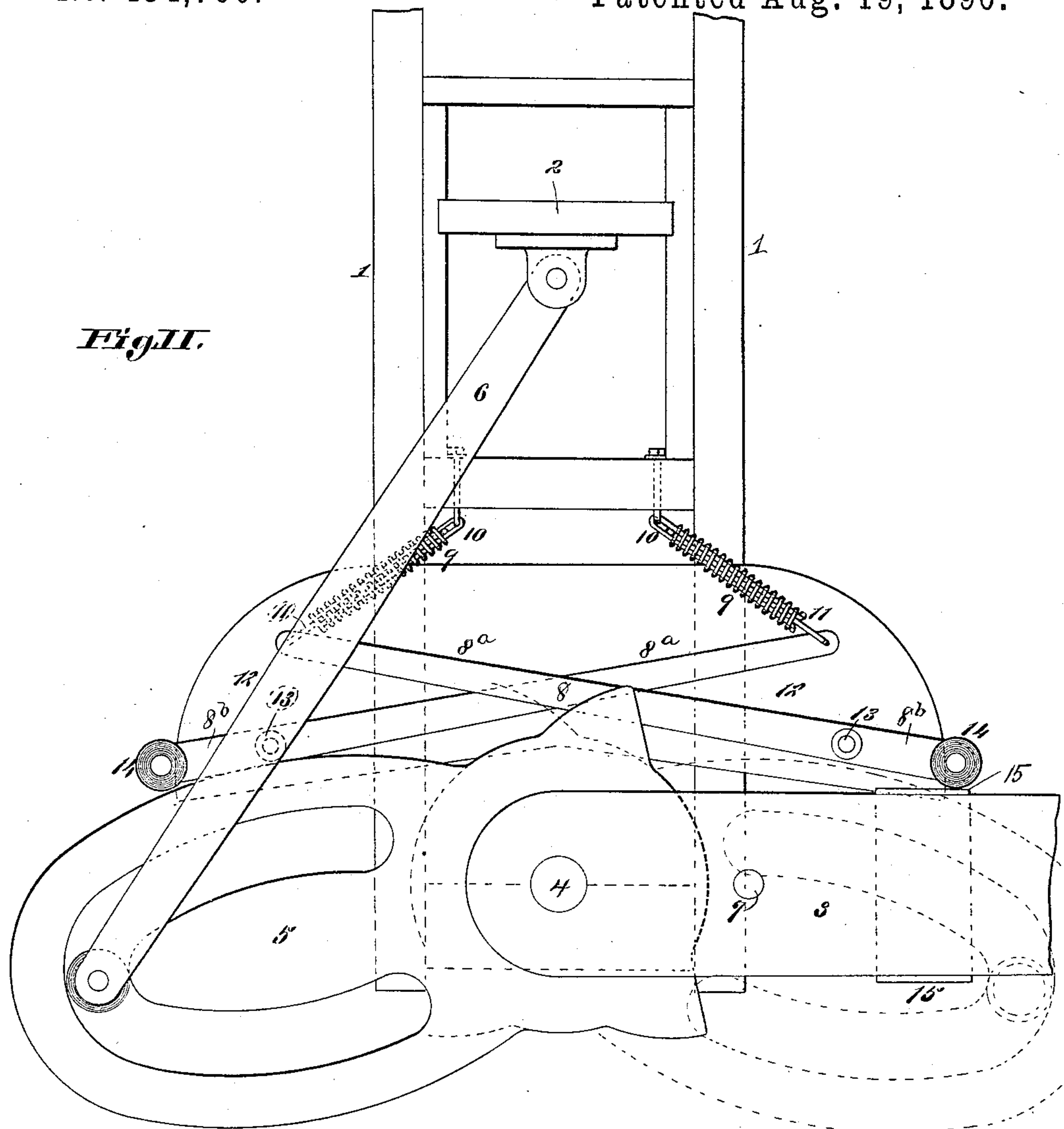
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UNITED STATES PATENT OFFICE.

JOHN W. BROWN AND ALBERT A. GEHRT, OF QUINCY, ILLINOIS, ASSIGNORS
TO THE COLLINS PLOW COMPANY, OF SAME PLACE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 434,760, dated August 19, 1890.

Application filed October 7, 1889. Serial No. 326,196. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. BROWN and ALBERT A. GEHRT, both of Quincy, in the county of Adams and State of Illinois, have
5 invented a certain new and useful Improvement in Baling-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 Our invention relates to certain improvements in presses for baling hay, straw, excelsior, and the like; and it consists, broadly, in a device connected to the plunger or traverser and adapted to be engaged by the power for
15 the purpose of assuring a positive backward movement of the traverser, as will be fully described hereinafter.

Figure I is a top or plan view illustrative of our invention. Fig. II is a similar view
20 illustrating the movement of the parts. Fig. III is an end view.

Referring to the drawings, 1 represents the body of the press; 2, the traverser; 3, the sweep; 4, the shaft upon which the sweep and
25 the power-head 5 are mounted, and 6 the pitman, forming a connection between the traverser 2 and the power-head 5. A slot-and-pin connection is made between the power-head and the outer end of the pitman, and
30 the sweep is adapted to engage the power-head and force the latter from side to side of the press and produce the movement of the traverser. As, for instance, when the sweep is moving in the direction indicated by the
35 arrow, Fig. I, the power-head is forced to the position shown in Fig. I, causing the traverser to move forward. When the point of bearing between the outer end of the pitman and the power-head passes the pivot of the
40 power-head, (*i. e.*, the shaft 4,) the power-head and pitman are free to move backwardly, as the head is loosely mounted on the shaft 4. Then, when the sweep is moved in the other direction, the contact-pin 7 thereon comes
45 against the opposite shoulder of the power-head to that shown in Fig. I, and the parts are forced forward again, and thus the oscillation of the sweep produces the forward movement of the traverser. We do not in
50 this application make any claim as inventors

to this means of imparting the forward movement to the traverser, and other means than the one we have shown and described might be employed to operate in connection with the features to which our present invention
55 does relate, and which we will now describe.

8 represents levers crossed, extending forward and rearward, and having their long arms 8^a connected at their inner ends to the traverser 2, the connection being preferably
60 made by means of springs 9, surrounding rods made fast respectively to the inner ends of the levers and to the traverser—that is to say, rods 10 are secured to the traverser and rods
11 to the levers, and the springs 9 surround
65 these rods, and are engaged at their outer ends by the outturned ends of the rods 10 and at their inner ends by the outturned ends of the rods 11. The levers 8 are pivoted to the body of the press so as to provide short
70 arms 8^a, preferably through means of a cross head or piece 12, rigidly secured to the main timbers of the press, and to which the levers are pivoted at 13. On the extreme outer ends of the levers we prefer to journal anti-fric-
75 tion rollers 14, although the outer ends of the levers may be merely rounded, if desired.

The operation is as follows: Just as the movement of the traverser is completed and the point of bearing between the power-head
80 and pitman passes the center the sweep 3 comes in contact with the outer end of one of the levers 8, and by moving the lever in the direction shown by the dotted arrows in Fig. I will produce a positive backward move-
85 ment to the traverser, and the difficulty heretofore experienced of the traverser failing at times to make its backward movement is obviated. By having two of the levers 8—one for each side of the press—a positive back-
90 ward movement of the traverser is insured whichever direction the power mechanism may be moved. The movement of the levers under the impact of the sweep is illustrated in Fig. II. By making the spring-con-
95 nection between the inner ends of the levers and the traverser any possibility of a breakage of the parts by the sweep coming against the outer ends of the levers before the forward pressure on the traverser is released
100

is obviated. We prefer to place a bearing-block 15 in the sweep 3, which bears against the outer ends of the levers 8 and protects the sweep from wear.

5 We claim as our invention—

1. The combination, with a traverser, a pitman, a power-head, and a sweep, of single levers 8, having long arms 8^a, crossed, extending forward and connected with the traverser, and short arms 8^b, separated, extending rearward and engaged by the sweep, substantially as described.

2. The combination, with a traverser, a pitman, a power-head, and a sweep, of single levers 8, having long arms 8^a, crossed and extending forward, and short arms 8^b, extending rearward, and the rods 10 and 11, and springs 9 by which the inner ends of the long arms are connected with the traverser, the outer ends of the short arms being engaged by the sweep, substantially as described.

3. In a baling-press, the combination of a traverser and power mechanism, a device for assuring the positive backward movement of the traverser, consisting, essentially, of levers, a spring-connection between the inner ends of the levers and the traverser, and pivots upon which the levers are mounted and beyond which they extend to be engaged by the power mechanism, substantially as set forth.

4. In a baling-press, the combination of a traverser and power mechanism, a device for assuring the positive backward movement of

the traverser, consisting, essentially, of levers 35 provided with rollers on their outer ends, a spring-connection between the inner ends of the levers and the traversers, and pivots upon which the levers are mounted and beyond which they extend to be engaged by the power mechanism, substantially as set forth. 40

5. In a baling-press, the combination of a traverser, a cross-head secured to the body of the press, levers pivoted to the cross-head and connected at their inner ends to the traverser, anti-friction rollers on the outer ends of the levers, a sweep provided with a bearing-block 15, and connections between the sweep and traverser whereby the latter is moved positively to press the material in the press-box, substantially as and for the purpose set forth. 45 50

6. In a baling-press, the combination of a traverser, a cross-head secured to the body of the press, levers pivoted to the cross-head, spring-connection between the inner ends of the levers and the traverser, anti-friction rollers on the outer ends of the levers, a sweep provided with a bearing-block 15, and connections between the sweep and traverser whereby the latter is moved positively to press the material in the press-box, substantially as and for the purpose set forth. 55 60

JOHN W. BROWN.
ALBERT A. GEHRT.

In presence of—

WILLIAM H. GOVERT,
WILLIAM N. BROWN.