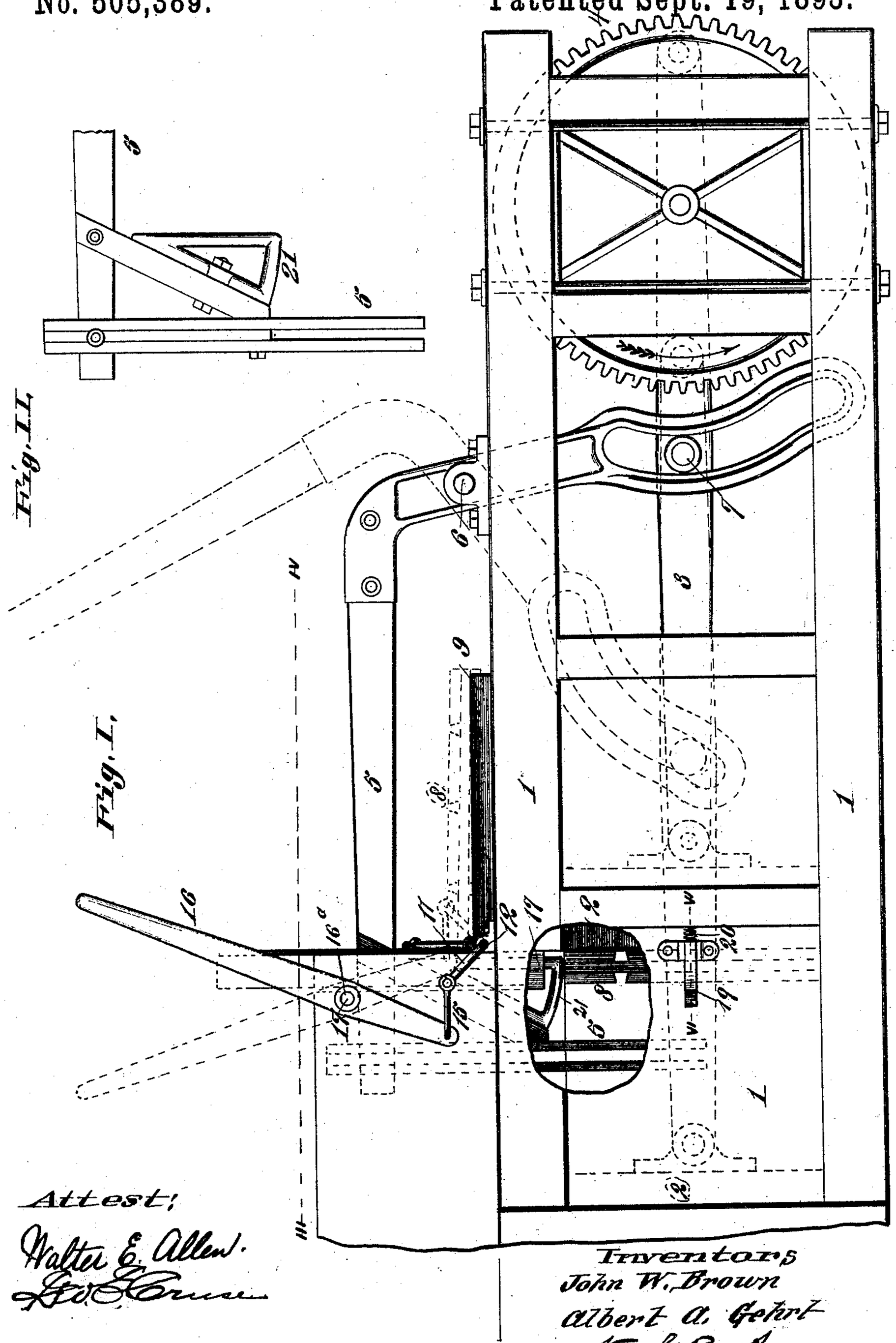
(No Model.) 2 Sheets—Sheet 1.

J. W. BROWN & A. A. GEHRT.

BALING PRESS.

No. 505,389. Patented Sept. 19, 1893.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. III.

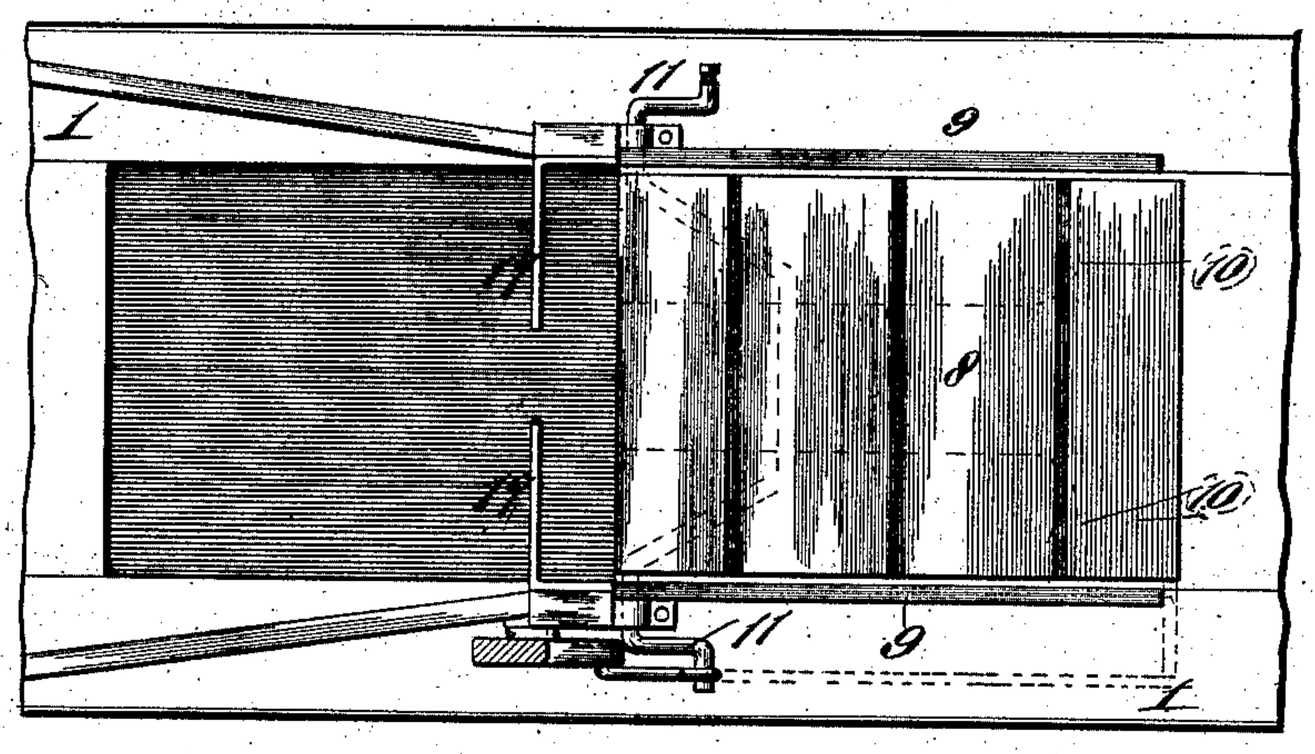
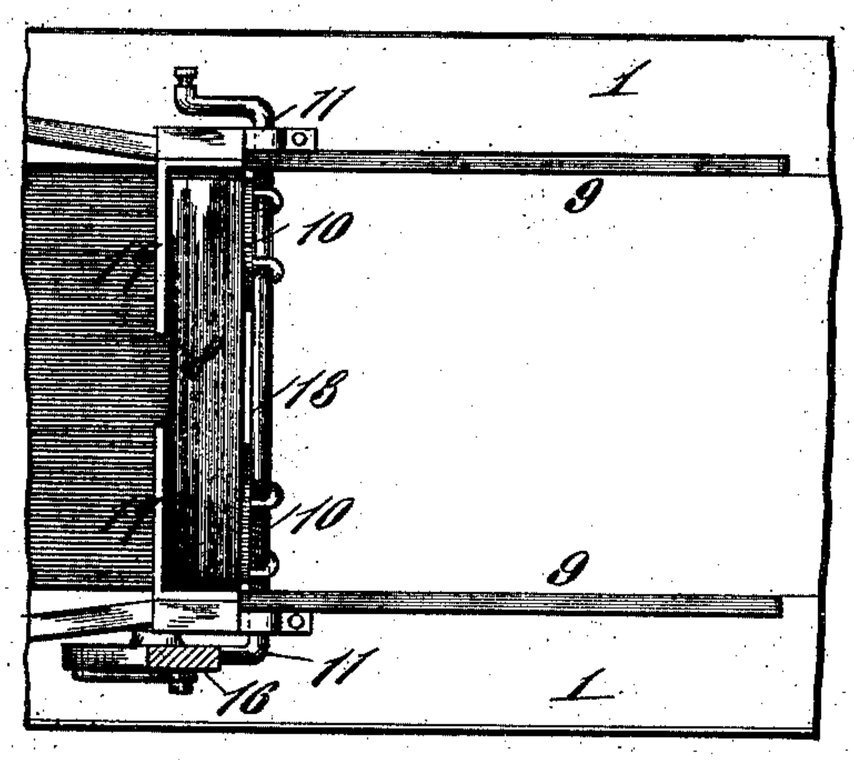


Fig. IV.

Fig. V.



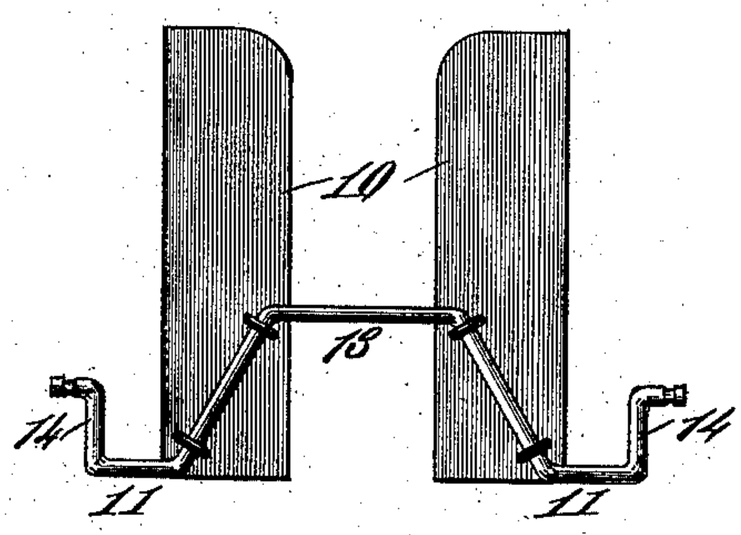


Fig. VI.

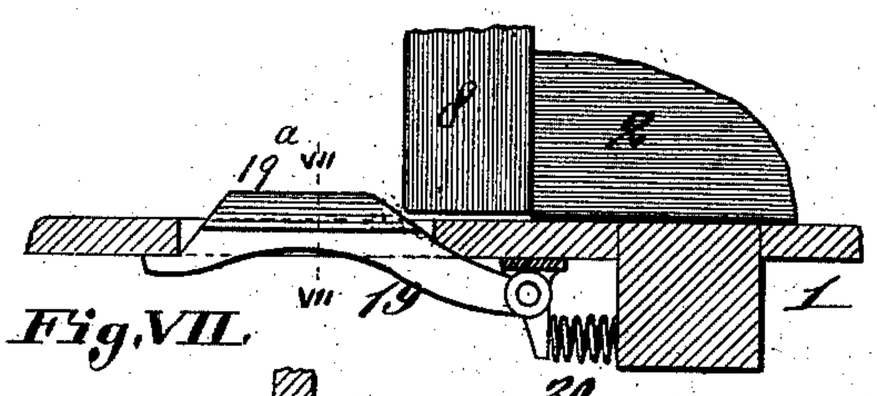


Fig. VII.

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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. 505,389, dated September 19, 1893.

Application filed November 3, 1892. Serial No. 450,841. (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 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.

Our present invention belongs to that part of a press which relates to the insertion of the division boards; and our invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a detail, side elevation, illustrative of our invention. Fig. II is a detail elevation of the forward end of the feeder. Figs. III and IV are horizontal sections, taken on line III—IV, Fig. I; Fig. III showing the parts in the position they occupy before the division board is inserted, and Fig. IV showing them in the position they occupy after the division board is inserted. Fig. V is a bottom view of the division board support, or plate. Fig. VI is an enlarged, detail section, taken on line VI—VI, Fig. I. Fig. VII is a section taken on line VII—VII, Fig. VI.

Referring to the drawings, 1 represents part of the body of the press, 2 is the plunger, 3 the pitman, and 4 mechanism for imparting motion to the plunger. These parts may be of any desired construction.

5 represents the feeder, pivoted at 6 to the body of the press, and having a slot and pin connection 7 with the pitman 3, so that as the pitman is vibrated or moved forward and back, it imparts movement to the feeder. No invention is claimed in this feeder device *per se*, in this application.

8 represents a division board placed in position to be inserted into the press. It rests between cleats or strips 9 on the body 1 of the press, just forward of the hopper or feed opening, and it rests upon or over a support 10, (see Fig. V, and dotted lines Fig. III,) which support is made fast to the top of the press preferably by means of a shaft 11 journaled in boxes 12; the shaft preferably having a bent portion 13, (see Fig. V,) to which the support is made fast. The shaft is provided at one or both ends with a crank 14, connected by a link or links 15 with a lever or levers 16, pivoted at 16^a to the press hopper, or other support. By moving the lever 16, the support 10 can be moved from its horizontal to a vertical or perpendicular position, and when it is thus moved, it, of course carries the division board with it, which slides down into the feed opening of the press.

We do not limit ourselves to any particular form of support 10 or means for moving it, as these can be changed indefinitely, as for instance the crank 13 of the shaft 11 might be long enough to serve as a support, and to move the plate 10 the lever 16 might be connected to a pin 10^a on the outer end of the plate.

To insure the vertical descent of the division board, we secure guides or stops 17 to the press, back of which the division board must necessarily pass. These guides prevent the division boards from sliding off of the support 10 until the boards are brought to practically a vertical position, and also prevent any possibility of the division boards tipping forwardly as they enter the baling chamber, and thus the vertical descent of the boards into the baling chamber is insured. The guides may also serve to keep the material being baled from getting under and preventing the free descent of the division boards. The guides may be of any suitable shape or form to answer the purpose described and are useful to guide the boards even if inserted by hand.

To prevent possibility of the division board falling forwardly, after it enters the baling chamber, we pivot retaining dogs 19 to the sides of the press, which are forced inwardly by springs 20, (see Figs. I and VI.) The inner ends of the dogs project slightly into the baling chamber, to the rear of the exit of the boards, and are chamfered off on their upper edges, so that when they are struck by the material being fed, as the latter descend, they will yield, and then, being pressed by the springs 20, will be forced into the chambers and hold the division boards from any possibility of falling into the baling chamber.

To insure the complete and perfect descent of the division boards, we prefer to secure a bracket or projection 21 to the feeder arm 5,

(see Figs. I and II,) so that in case the division boards should not, by gravity, descend entirely into the baling chamber, the feeder will strike them through means of this bracket or projection and force them by a positive movement into position.

By the use of our invention, a simple and effective means and method of inserting the division boards is provided, and the accurate and complete insertion of the boards is guaranteed.

We claim as our invention—

1. In a baling press, the guides 17 for directing the division boards into the press, in combination with a support pivoted adjacent to said guides for lifting said boards into a vertical position; substantially as set forth.

2. In a baling press, the combination of a support for the division boards, a crank shaft to which the support is secured, and a lever connected to the crank-shaft for moving the support and division board to a vertical position, to permit the division board to drop by gravity into the press chamber; substantially as set forth.

3. In a baling press, the combination of a support for the division boards, means for moving the support into a vertical position, and spring-actuated dogs 19 for holding the division boards in an upright position in the baling chamber; substantially as set forth.

4. The combination, in a baling press, of the baling box having an opening for the admission of division boards, with the retaining dogs 19 having beveled portions 19ª and supported in the walls of the baling box and adapted to hold the division boards in upright position while they are being inserted, substantially as and for the purpose set forth.

5. In a baling press, the combination of a support for the division boards, means for moving the support into a vertical position, guides 17 for directing the division board into the baling chamber, and spring-actuated dogs 19 for holding the division board in an upright position in the baling chamber; substantially as set forth.

6. In a baling press, the combination of the baling box, the vertical guides 17 which hold the division boards upright against horizontal or lateral movement when pressed by the feeder, and the feeder having a bracket or projection 21 for engaging the division boards, substantially as and for the purpose set forth.

7. In a baling press, the combination of a support for the division boards, means for moving the support into a vertical position, guides 17 for insuring the vertical descent of the division boards, and a feeder having a projection or bracket 21; substantially as and for the purpose set forth.

JOHN W. BROWN.
ALBERT A. GEHRT.

In presence of—
GEORGE A. BINKERT,
GEO. W. ELICK.