L. TRABUE.

BALING PRESS.

APPLICATION FILED SEPT. 5, 1911.

1,014,615.

Patented Jan. 9, 1912.

2 SHEETS—SHEET 1.

Fig. 2.

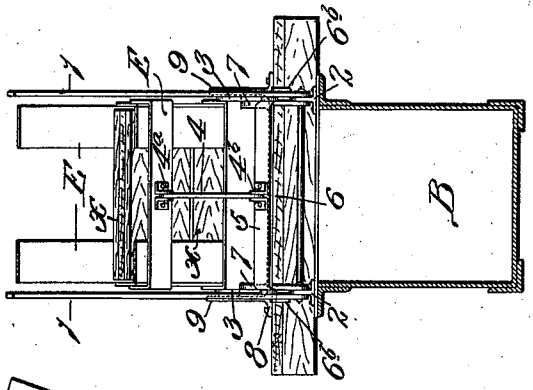
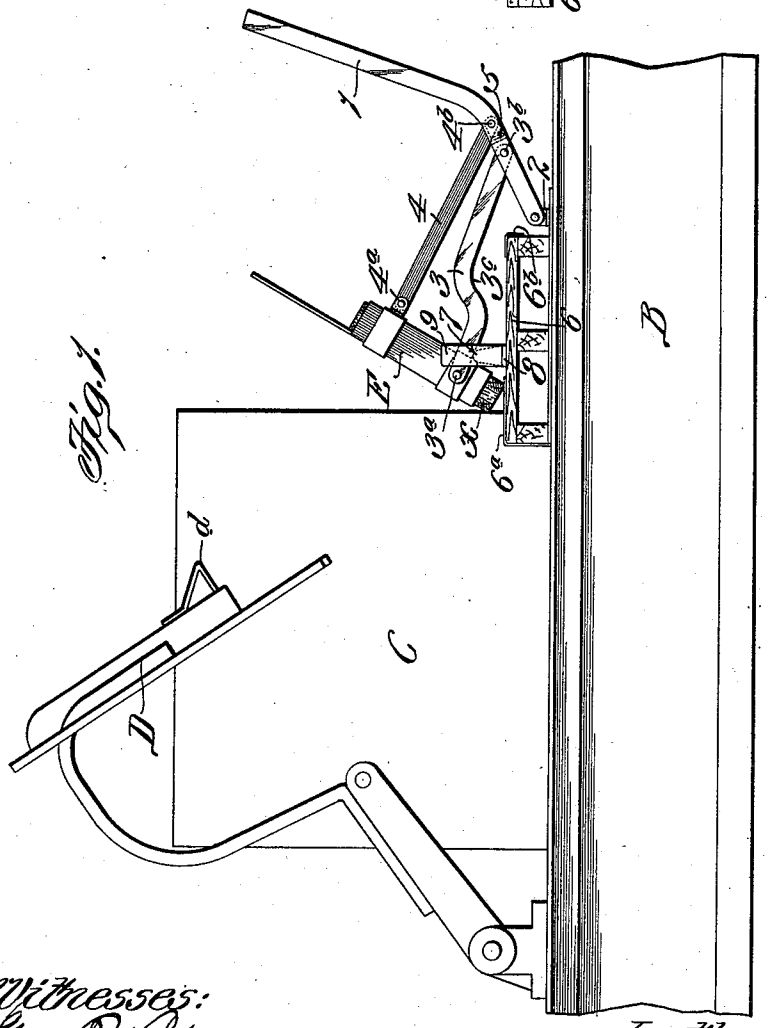


Fig. 1.



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By Paul Bakewell Atty.

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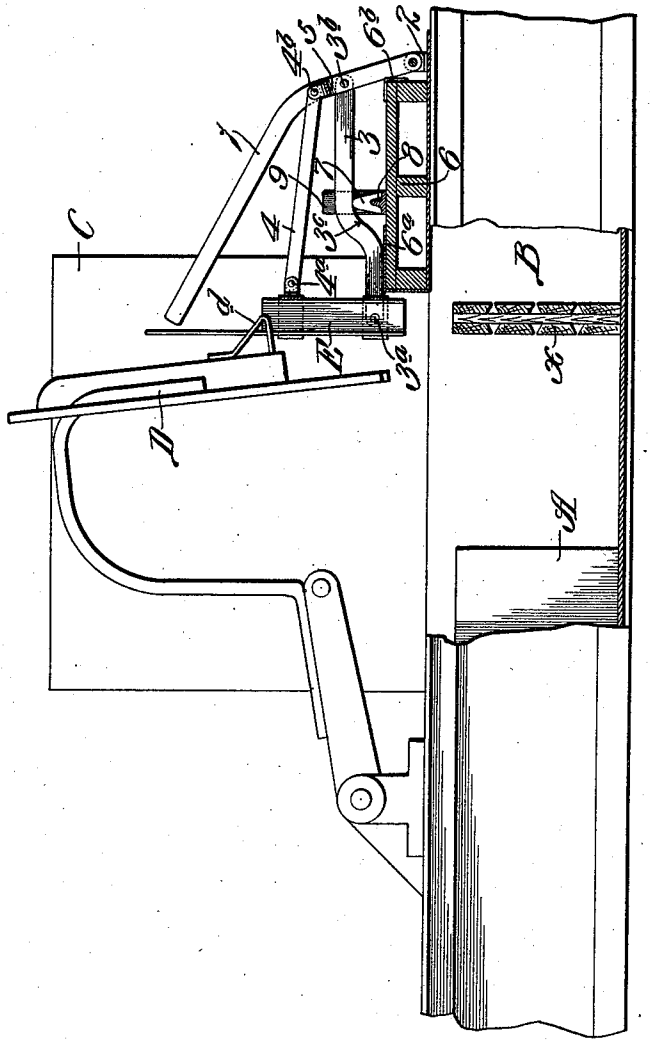

Fig. 3.

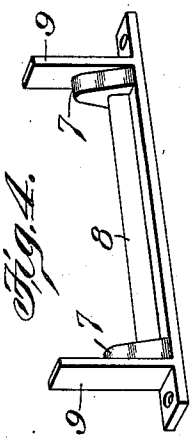

Fig. 4.

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UNITED STATES PATENT OFFICE.

LUTHER TRABUE, OF GIRARD, ILLINOIS.

BALING-PRESS.

1,014,615. Specification of Letters Patent. Patented Jan. 9, 1912.

Application filed September 5, 1911. Serial No. 647,756.

To all whom it may concern:

Be it known that I, LUTHER TRABUE, a citizen of the United States, residing at Girard, Illinois, have invented a certain new and useful Improvement in Baling-Presses, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to baling presses, and particularly to the block-dropping mechanisms used in baling presses for introducing the division blocks into the baling chamber.

One object of my invention is to provide a baling press having a block-dropping mechanism of novel construction that comprises a block-holder which lies in an inclined position at the rear of the hopper when in receiving position, thereby producing a relatively large hopper into which the material can be fed or thrown easily.

Another object is to provide a block-dropping mechanism consisting of a swinging or oscillating block-holder and an operating means for said block-holder which is so designed that the holder will be moved from an inclined position into a truly vertical position during the operation of introducing the division block into the baling chamber. And still another object is to provide a block-dropping mechanism of the construction above-described which is so designed that a block cannot be introduced into the block-holder when said holder is in delivering position.

Other objects and desirable features of my invention will be hereinafter pointed out.

Figure 1 is a side elevational view of a baling press constructed in accordance with my invention showing the block-holder arranged in receiving position; Fig. 2 is an end elevational view looking from the righthand end of Fig. 1; Fig. 3 is a side elevational view showing the holder in delivering position; and Fig. 4 is a perspective view of the guide which governs the movement of the links that carry the block-holder.

Referring to the drawings which illustrate the preferred form of my invention, A designates the plunger or compressing member of a baling press which reciprocates back and forth in a baling chamber B, and C designates a hopper arranged above the baling chamber so as to receive the hay or material which is forced downwardly into the baling chamber by the beater D. A block-holder E is arranged at the rear end of the hopper C so as to form the rear wall of said hopper and at a certain period in the cycle of operations of the baling press said block-holder is moved from the receiving position shown in Fig. 1 into delivering position shown in Fig. 3 so that the division block x therein can drop downwardly into the baling chamber, as shown in Fig. 3, the beater D being provided with a forwardly projecting arm d that engages the block x in case said block sticks in the block-holder and thus fails to drop out of same when the block-holder arrives in delivering position.

The means for moving the block-holder from receiving position into delivering position and for restoring said block-holder back into receiving position preferably consists of a pair of levers or arms 1 pivotally connected at their lower ends to brackets 2 on the top wall of the baling chamber and connected to the block-holder E by means of a pair of links 3 and a single link 4. The links 3 are pivotally connected at 3^a to the lower end of the block-holder and are pivotally connected at 3^b to the operating levers 1 and said links are provided intermediate their ends with curved or offset portions 3^c. The front end of the link 4 is pivotally connected at 4^a to the upper end of the block-holder E and the rear end of said link 4 is pivotally connected at 4^b to the cross-piece of a yoke 5 which ties the operating levers 1 together. A platform 6 which is arranged on the top wall of the baling chamber at the rear side of the opening through which the material is introduced into the baling chamber, forms a support for the lower end of the division block x while the block-holder is moving from its receiving position, shown in Fig. 1, into its delivering position, shown in Fig. 3, the block being discharged from said holder as soon as the block moves off the platform 6. I prefer to provide the top face of said platform with a wear plate 6^a on which the lower end of the division block slides, and if desired, the rear end of said platform may be provided with a stop plate 6^b against which the operating levers 1 bear when said levers are moved forwardly, as shown in Fig. 3, the rear end of the platform 6 thus acting as a stop to limit the forward movement of the operating levers. The links 3 and 4 are so proportioned and designed that the block-holder E

will lie in an inclined position when the operating levers 1 are drawn back or arranged in the position shown in Fig. 1, thus permitting a division block x to be introduced into the upper end of the block-holder. The links 3 are longer than the link 4, and guides 7 are provided for holding the links 3 in such a position that the lower end of the block-holder E will be held spaced away from the top face of the platform 6 when the block-holder is moving from receiving position into delivering position, the guides 7 being preferably mounted on a plate 8 arranged transversely of the platform 6 and provided with upwardly projecting members 9 that embrace the links 3 and thus prevent the block-holder from moving laterally out of a straight line when it is moving from receiving position into delivering position or vice versa.

The lower edges of the links 3 rest upon the upper ends of the guides 7, the upper ends of said guides being rounded, as shown in Fig. 4, and when the operating arms 1 are moved forwardly the links 3 ride forwardly over said guides and swing downwardly when the curved or offset portions 3^c of said links reach the guides 7, the offset portions of said links and the guides 7 being so arranged with relation to each other and with relation to the end of the platform 6 that the block-holder E will drop downwardly after the lower end of the division block has passed off the platform 6. When the operating arms 1 are drawn back or restored to normal position the curved or offset portions 3^c of the links 3 ride upwardly over the guides 7 and thus prevent the lower end of the block-holder from striking against the front end of the platform 6 or from dragging over said platform when the block-holder is being restored to receiving position.

One advantage of a baling press of the construction above-described is that the hopper C has a relatively wide opening which permits the material to be fed to the press easily and in large quantities, this being due to the fact that the block-holder E which forms the rear wall of the hopper is arranged in an inclined position at the time the material is being pitched into the hopper. Another advantage of such a baling press is that the block-dropping mechanism is easy to operate and not liable to get out of order; and still another very desirable feature of such a press is that the block-holder is arranged in a truly vertical position at the time the division block is discharged therefrom, thereby eliminating all possibility of the block tilting or being discharged into the baling chamber in an inclined position. The platform 6 which supports the lower end of the division block prevents said block from dropping out of the holder before the holder has reached its delivering position.

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

1. A block-dropping mechanism for baling presses comprising a block-holder, an operating lever, a link pivotally connected to said block-holder and pivotally connected to said lever, a guide with which said link coöperates, and an independent link pivotally connected to said lever and block-holder for causing said block-holder to turn from an inclined into a vertical position when it is moving into delivering position.

2. A block-dropping mechanism for baling presses comprising a block-holder, an operating lever, a link pivotally connected to said holder and lever and provided with a curved surface intermediate its ends, a guide coöperating with said link, and an independent connection between said block-holder and lever which causes said holder to turn from an inclined into a vertical position when it is moving into delivering position.

3. A block-dropping mechanism for baling presses comprising a block-holder, an support arranged under said holder for supporting the lower end of the block mounted in the holder, and means for moving the block-holder back and forth over said support and downwardly when it reaches one end of said support without engaging said support.

4. A block-dropping mechanism for baling presses comprising a block-holder, a support that is adapted to be engaged by the lower end of the block mounted in said holder, an operating means for said holder comprising a manually-operated lever and a plurality of links which are so arranged that the holder will be turned from an inclined into a vertical position when it is moving into delivering position, and means coöperating with one of said links for holding the lower end of the block-holder above said support.

5. A block-dropping mechanism for baling presses comprising a block-holder, an operating lever, a link pivotally connected to said lever and to one end of said block-holder, and a shorter link pivotally connected to said lever and to the opposite end of said block-holder.

6. A block-dropping mechanism for baling presses comprising a block-holder, an operating lever, a link pivotally connected to said lever and to one end of said block-holder, a shorter link pivotally connected to said lever and to the opposite end of said block-holder, a support for the lower end of the said block in said block-holder, and means coöperating with one of said links for holding said block-holder above said sup-

port when it is being moved to and from delivering position.

7. In a baling press, a block-holder, a support arranged adjacent the feed opening of the baling chamber for supporting the lower end of the block in said holder, an operating lever, means arranged between said lever and block-holder for turning the block-holder from an inclined into a vertical position and moving it toward the feed opening of the baling chamber when the operating lever is moved in one direction, and means for causing the block-holder to move downwardly when it passes one end of said support.

8. A block-dropping mechanism for baling presses comprising a block-holder, an operating lever, a support that is adapted to be engaged by the lower end of the block in said holder, a link pivotally connected to said lever and to the lower end of said block-holder and provided intermediate its ends with an offset portion, a guide on said support on which said link travels, and a shorter link pivotally connected to said lever and to the upper end of said block-holder.

9. A block-dropping mechanism for baling presses comprising a block-holder, a pair of operating levers arranged above the baling chamber, a pair of links pivotally connected to said levers and to the lower end of said block-holder and provided intermediate their ends with offset portions, a platform arranged at one side of the feed opening of the baling chamber and adapted to act as a support for the lower end of the block in said holder, a yoke for connecting said operating levers together, a short link pivotally connected to said yoke and to the upper end of said block-holder, a transversely arranged member on said platform provided with guides on which said offset links travel, and upwardly projecting portions on said member which embrace said links.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this thirty-first day of August, 1911.

LUTHER TRABUE.

Witnesses:
WELLS L. CHURCH,
CORA BADGER.