M. C. NIXON.

BALING PRESS.

APPLICATION FILED APR. 5, 1911.

1,022,394.

Patented Apr. 2, 1912.

FIG. 2.

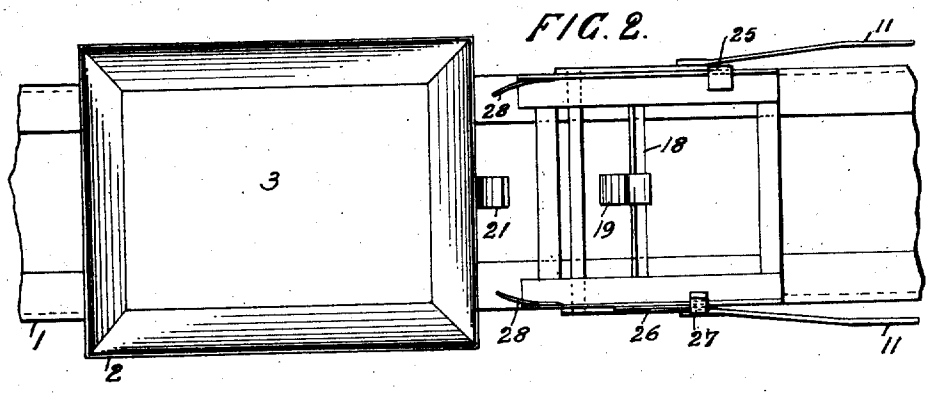

FIG. 4.

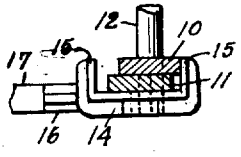

FIG. 3.

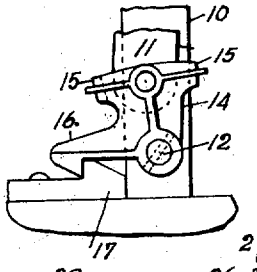

FIG. 1.

WITNESSES.

H. A. Smith Kleine

S. M. Nixon

INVENTOR.

Moses C. Nixon

UNITED STATES PATENT OFFICE.

MOSES C. NIXON, OF PERU, INDIANA.

BALING-PRESS.

1,022,394. Specification of Letters Patent. Patented Apr. 2, 1912.

Application filed April 5, 1911. Serial No. 619,179.

To all whom it may concern:

Be it known that I, MOSES C. NIXON, a citizen of the United States, and a resident of Peru, in the county of Miami and State of Indiana, have invented new and useful Improvements in Baling-Presses, of which the following is a specification.

The present invention relates to improvements in baling presses, and particularly to division-block droppers for such presses; the object being to provide a device to automatically lock the block-dropper when in normal position, and means to absorb the shock incident to throwing the block-dropper forward to insert the division-block; and consists, preferably, in the construction hereinafter described, which may be varied without departing from the spirit of my invention.

In the drawings Figure 1 is a side elevational view of the central portion of a baling press having my invention applied, all parts not necessary to a clear understanding of the invention being omitted; Fig. 2 is a plan view of the same; Fig. 3 is a side elevation of the automatic locking device with upper part of leg and lever broken away, and Fig. 4 a top view of Fig. 3.

Referring to the drawings, 1 is the central portion of the baling-case of the baling press, and 2 is the hopper which is secured to the top of the baling-case and about feed-aperture 3, in the usual and well understood manner. A suitable feeder 4 is mounted in the usual and well understood manner and adapted to be forced downwardly through the hopper and feed-aperture into the baling-case for the purpose of forcing the material into the baling-chamber. This feeder is provided on its face with a projection 5. Rearwardly of the hopper and on the opposite sides of the baling-case are secured two brackets 6 to which is pivotally secured a block-dropper 7. This dropper consists of two side bars 8 which are pivotally connected at their lower ends to brackets 6. The upper ends of bars 8 are secured to the division-block support or holder 9. Two legs 10 are also secured to opposite sides of the support 9 and to bars 8 and, in normal position of the dropper, the lower ends of legs 10 rests upon the top of the baling-case. One or more suitable levers 11 are pivoted to legs 10. A shaft 12 is journaled in the lower part of legs 10. To one end of shaft 12 is firmly secured a bracket 14, which is provided with two lugs 15 which project on opposite sides of lever 11 and the adjacent legs 10, the legs serving to limit the movement of the lever and bracket by the lugs making contact with the leg. Bracket 14 is pivotally secured at its upper end to lever 11. A hook or latch 16 is provided on bracket 14 which is adapted to engage a catch or stop 17 which is secured to the top of the baling-case. A similar bracket is firmly secured to the opposite end of shaft 12 and pivotally connected with adjacent lever 11, but this bracket need not have a latch 16 since both brackets are firmly secured to the same shaft. By rocking either lever 11 toward the hopper brackets 14 are rocked rearwardly with shaft 12, thereby elevating hook or latch 16 out of engagement with catch 17 and permitting the operator to rock the entire block-dropper into position shown in dotted outline in Fig. 1; that is, a vertical position within the hopper 2 so that the division-block carried by the support will lie in the path of the descending feeder 4 or projection 5 thereon by which projection the division-block is dislodged from the support or holder and permitted to drop into the baling-chamber.

A bar 18 is secured to legs 8 of the block-dropper frame and carries a wedge 19. On the rearward wall of hopper 2 is provided a casting 20 having a socket at its lower extremity in which is pivotally arranged a blade 21. A bolt 22 passes through blade 21 and through the wall of hopper 2. A compression spring 23 is supported on bolt 22 and bears against the outer surface of blade 21, a nut 24 serving to adjust the tension on the spring. When the dropper is carried forward to insert the division-block the wedge 19 enters between blade 21 and the casting or hopper wall tending to force outwardly blade 21 against the pressure of spring 22. There is therefore provided a yielding contact and shock absorber for the block-dropper. While I have illustrated and described this shock absorber with the resilient part on the hopper and the co-acting part on the block-dropper it will be understood, of course, that these parts may be reversed or, located in any relation found suitable for the purpose.

The division-block support 9 is a frame secured to bars 8 and legs 10 and having a bracket 25 on one side which extedns upwardly in the normal position of the dropper. This bracket is provided with an inwardly extending projection which is adapted to engage the upper surface of the division-block which is carried by or supported on the frame 9. On the opposite side of the frame 9 is secured a flat spring 26 and secured thereto is a dog 27, which dog, having at its upper extremity an inwardly extending projection which is also adapted to engage the upper surface of the division-block. The top and inner side of dog 27 is sloping so that when inserted the downward pressure of the division-block will force it outwardly. At the forward end of frame 9 and on opposite sides thereof are secured two flat springs 28 which releasably support the division-block when the dropper is rocked forward into position shown in dotted outline in Fig. 1. The division-block is first inserted under bracket 25 and when pressed downward into place, the dog being forced outwardly until the upper surface of the block passes the projection of the dog when the dog is forced inwardly by its spring and engages the edge and upper surface of the division-block and in conjunction with springs 28 secures the said block to the support or holder 9 and permitting the dropper and block to be rocked on the pivot brackets to assume the position shown in dotted outline in Fig. 1. When the block-dropper is in normal position the hook or latch 16 is in engagement with catch 17, thereby securely retaining it in said position until released by the actuation of lever 11, thus preventing the block-dropper from being prematurely carried into the feed-aperture.

What I claim is:

1. In a baling-press having a block-dropper, a suitable member carried by the block-dropper, and resilient means permanently located and adapted to co-act with said member to receive the shock when said dropper is moved to position for dropping the block.

2. In a baling-press, a block-dropper, and resilient means coöperating therewith to receive the shock when the block-dropper is moved to position for dropping the block.

3. In a baling-press having a block-dropper, a suitable resilient contrivance, and a member suitably arranged to co-act with said contrivance to reduce the shock when the block-dropper is moved to position for dropping the block.

4. In a baling-press having a block-dropper, a member carried by said dropper, and a device comprising a stationary part suitably supported and another part movably connected with the stationary part and means to resiliently hold the two parts in working connection with each other, said device being adapted to co-act with the member to reduce the shock incident to moving the block-dropper to position for dropping the block.

5. In a baling-press having a block-dropper, a contrivance comprising two parts suitably supported and resiliently held in working connection with each other, and a suitable member arranged to co-act with said contrivance to receive the shock of the block-dropper when moved to position to drop the block.

6. In a baling-press having a block-dropper, a device comprising a part fixed to a support, a blade movably secured to said part, and resilient means to press said blade toward said part, and a member adapted to coact with said device and arranged to receive the shock incident to moving the block-dropper to position for dropping the block.

7. In a baling-press having a block-dropper, a resilient means, and a member suitably arranged to coact with said resilient means to receive the shock incident to moving the block-dropper to position for dropping the block.

8. In a baling-press having a block-dropper, a device to automatically lock the block-dropper when in normal position, and means for releasing initial force applied to move the block-dropper to position for dropping the block.

9. In a baling-press having a block-dropper, an automatic locking device, and a releasing device comprising a lever pivotally secured to said dropper, a latch pivotally connected with said lever and to the block-dropper, and a catch secured to some stationary part and arranged to be caught by said latch.

10. In a baling-press having a baling case with a feed-opening thereon, a block-dropper, a lever, a device suitably arranged to automatically lock said dropper when moved to normal position, and means for releasing the same as the lever is moved to carry the dropper to the feed opening.

11. In a baling-press having a block-dropper, a suitable device to automatically lock said dropper when moved to normal position, and means for releasing the same preparatory to moving it forward to drop the block.

12. In a baling-press having a block-dropper, a pivotally mounted frame, an actuating lever pivotally secured to said frame, a locking device pivotally connected to the frame and to said lever, and a suitable member to co-act with the locking device to lock said dropper when in normal position and release the same by moving said lever.

13. In a baling press having a block-dropper, a device for locking the block-dropper

when in normal position, and means carried by said block-dropper for releasing said locking device.

14. In a baling-press having a block-dropper, a device for locking the block-dropper when in normal position, and means whereby the same is released by initial force to move said dropper to position for dropping the block.

15. In a baling-press having a block-dropper, a locking device, a lever for moving the block-dropper, and means in connection with said lever for releasing said locking device.

16. In a baling press, a block-dropper, resilient means, and a part adapted to co-act with the resilient means to receive the shock from the impact when the dropper is moved to position for dropping the block.

17. In a baling-press, a block-dropper, and resilient means adapted to receive the shock from the impact when the block-dropper is moved to position for dropping the block.

In witness whereof, I hereunto sign my name this third day of April, 1911.

MOSES C. NIXON.

Witnesses:
J. G. BRACKINRIDGE,
S. M. NIXON.

Corrections in Letters Patent No. 1,022,394.

It is hereby certified that in Letters Patent No. 1,022,394, granted April 2, 1912, upon the application of Moses C. Nixon, of Peru, Indiana, for an improvement in "Baling-Presses," errors appear in the printed specification requiring correction as follows: Page 2, line 97, after the word "releasing" insert the words *the same by;* same page, line 109, for the word "thereon" read *therein;* page 3, line 7, after the word "force" insert the word *applied;* and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 21st day of May, A. D., 1912.

[SEAL.]

C. C. BILLINGS,
Acting Commissioner of Patents.

when in normal position, and means carried by said block-dropper for releasing said locking device.

14. In a baling-press having a block-dropper, a device for locking the block-dropper when in normal position, and means whereby the same is released by initial force to move said dropper to position for dropping the block.

15. In a baling-press having a block-dropper, a locking device, a lever for moving the block-dropper, and means in connection with said lever for releasing said locking device.

16. In a baling press, a block-dropper, resilient means, and a part adapted to co-act with the resilient means to receive the shock from the impact when the dropper is moved to position for dropping the block.

17. In a baling-press, a block-dropper, and resilient means adapted to receive the shock from the impact when the block-dropper is moved to position for dropping the block.

In witness whereof, I hereunto sign my name this third day of April, 1911.

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