J. DAIN.

HAY PRESS.

APPLICATION FILED JAN. 28, 1905.

943,656.

Patented Dec. 21, 1909.

7 SHEETS—SHEET 1.

Fig. 1

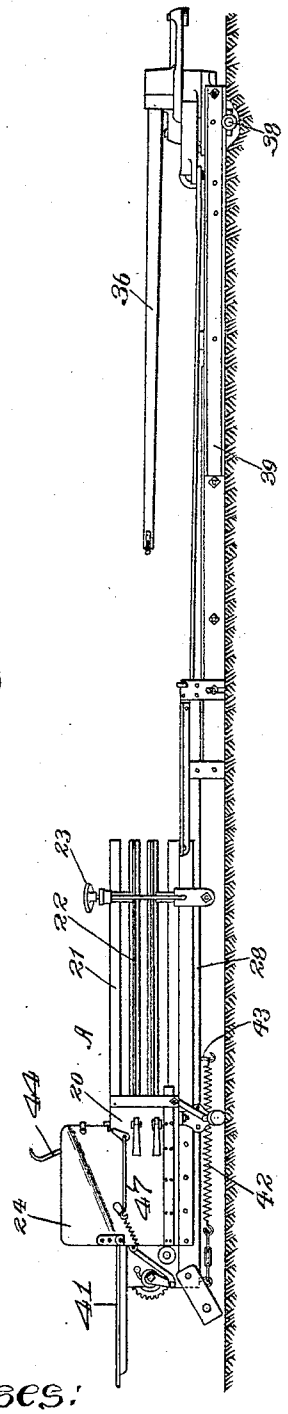
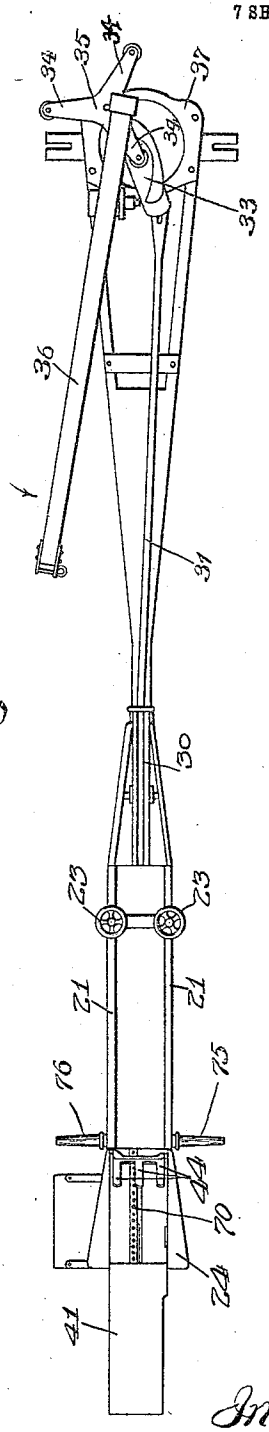


Fig. 2



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7 SHEETS—SHEET 2.

Fig. 3.

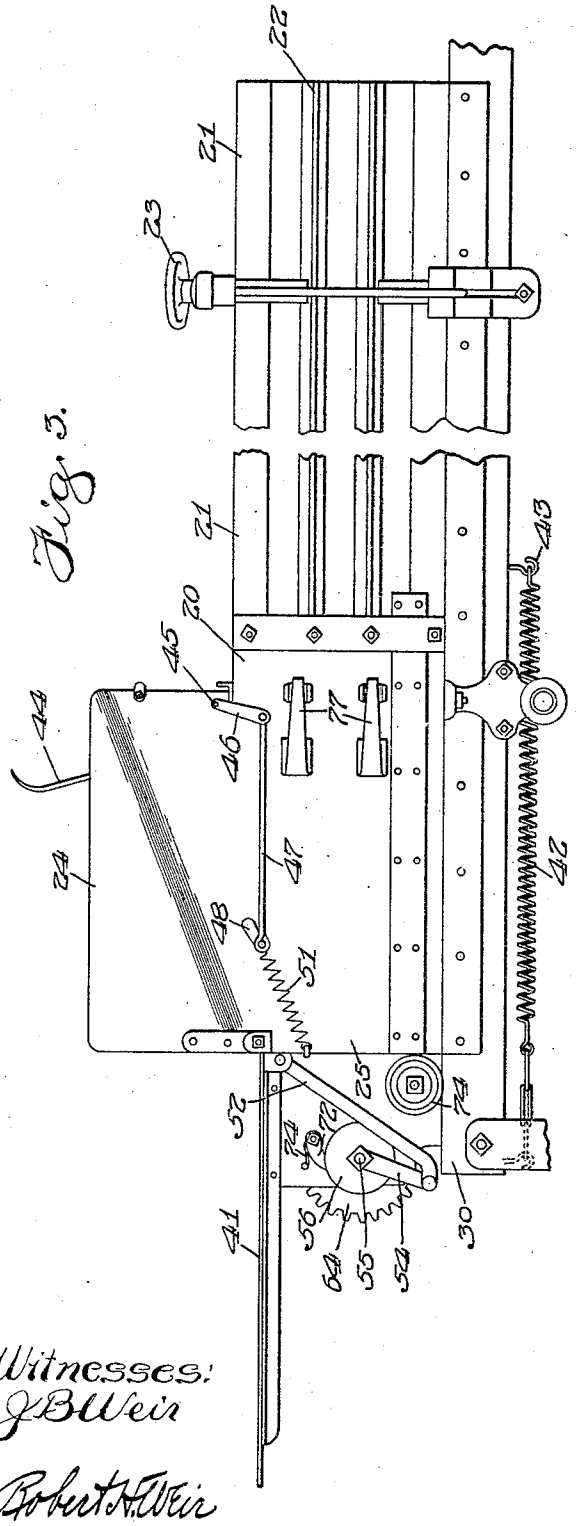
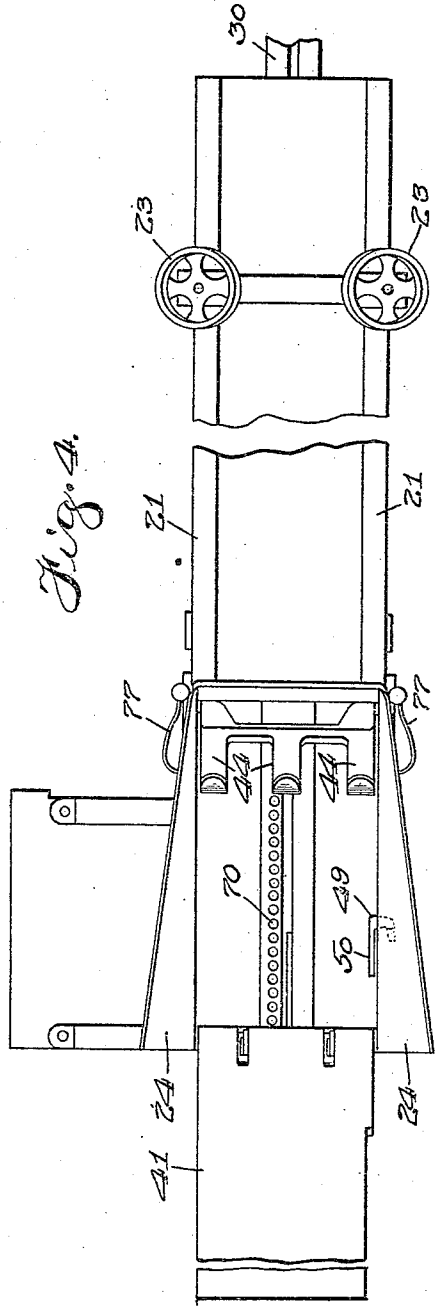


Fig. 4.



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7 SHEETS—SHEET 3.

Fig. 5.

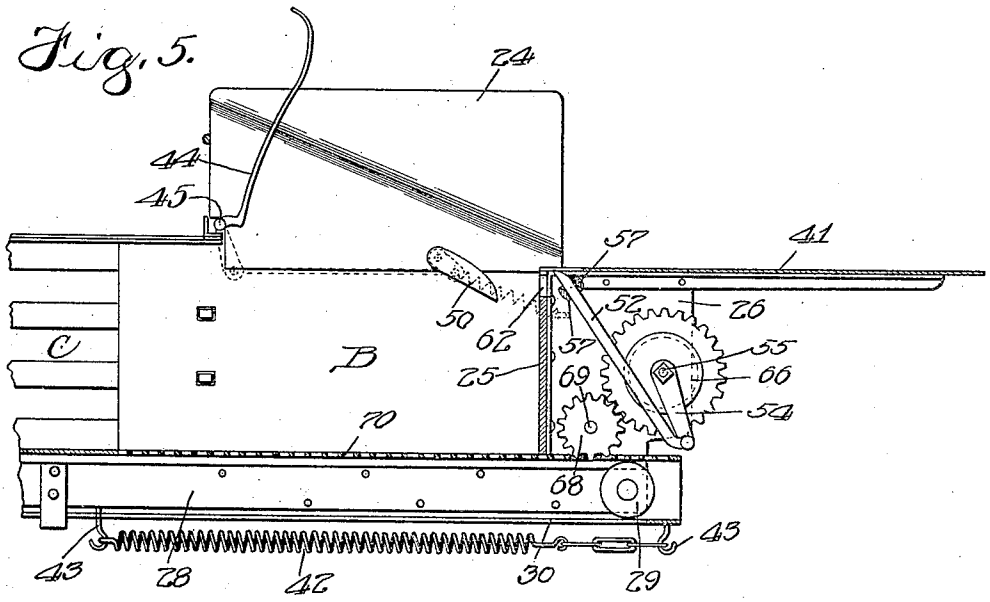
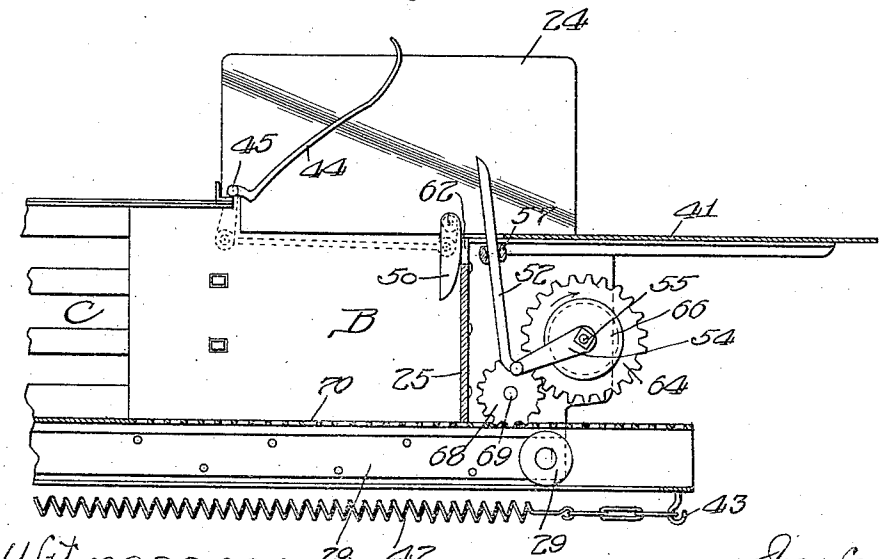


Fig. 6.



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7 SHEETS—SHEET 4.

Fig. 7.

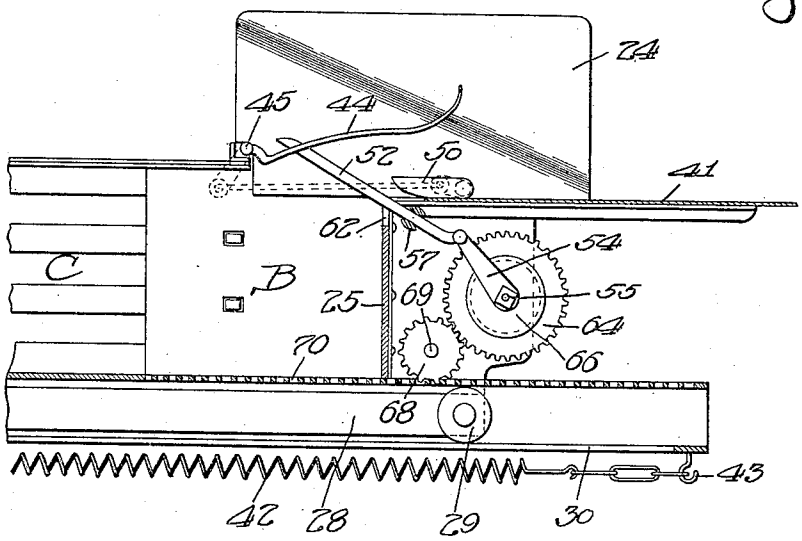
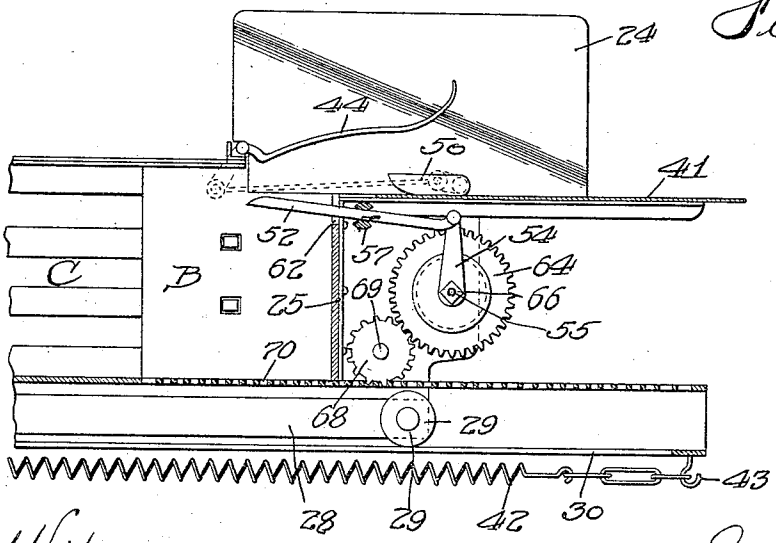


Fig. 8.



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7 SHEETS—SHEET 5.

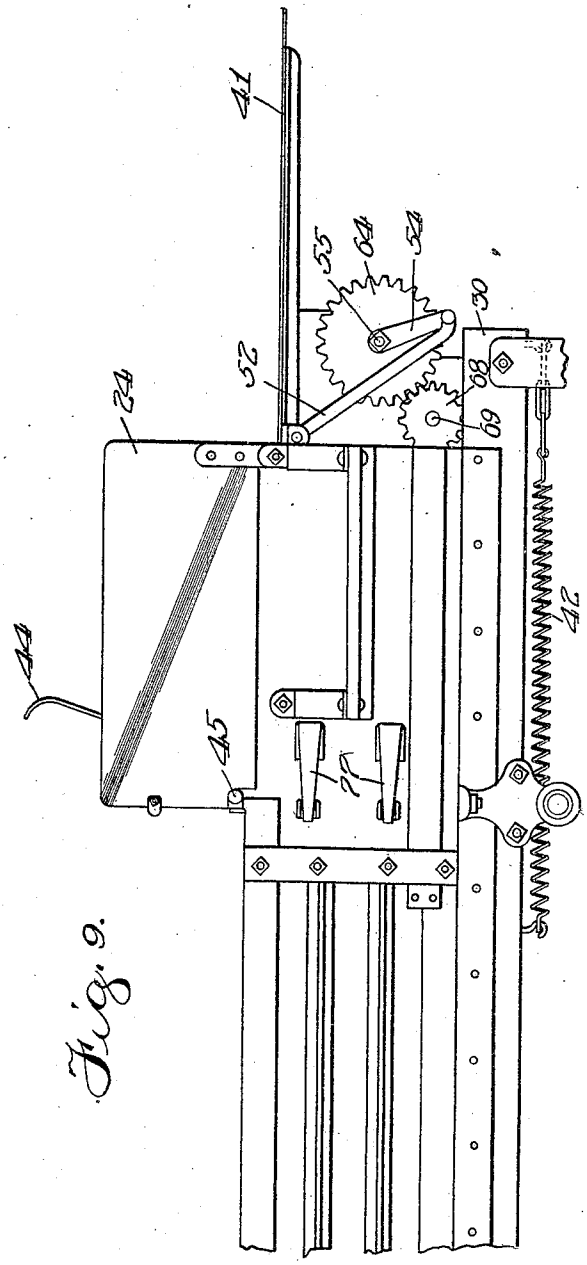

Fig. 9.

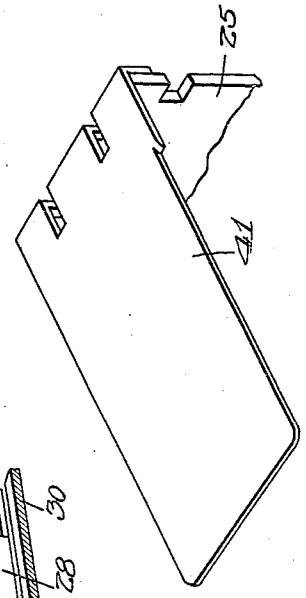

Fig. 11.

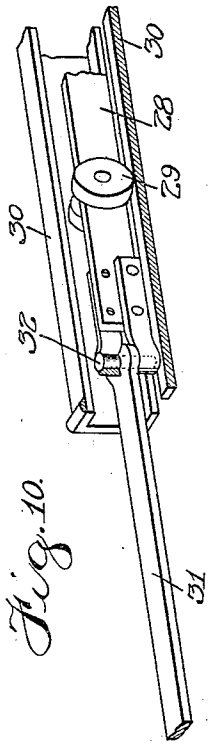

Fig. 10.

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7 SHEETS—SHEET 6.

Fig. 12.

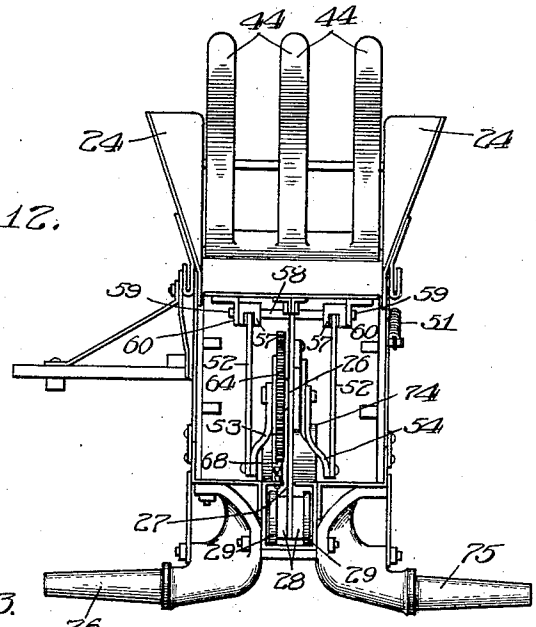


Fig. 13.

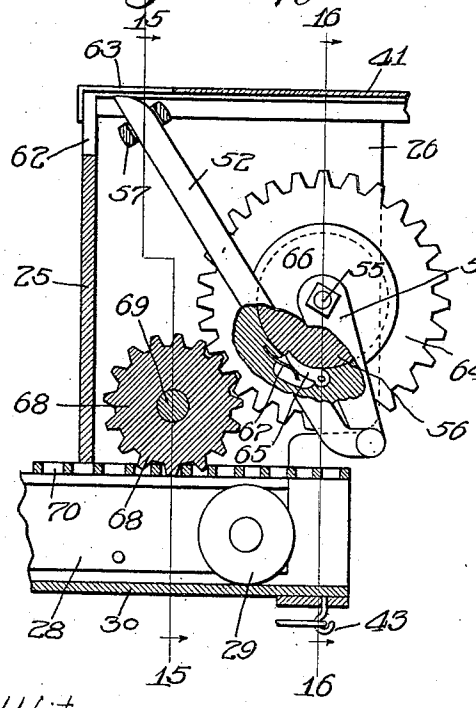
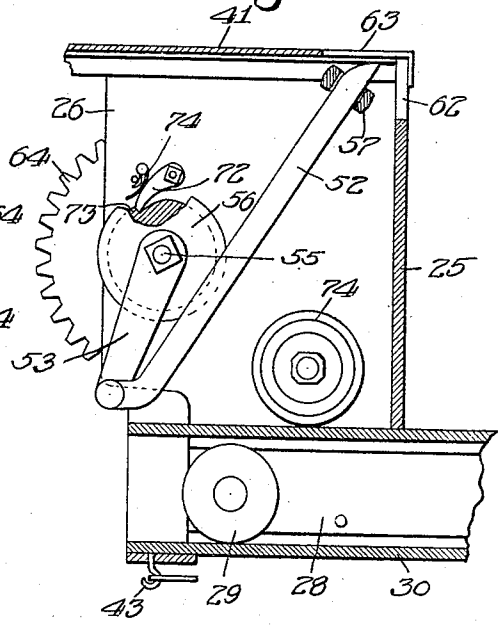


Fig. 14.



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7 SHEETS—SHEET 7.

Fig. 15.

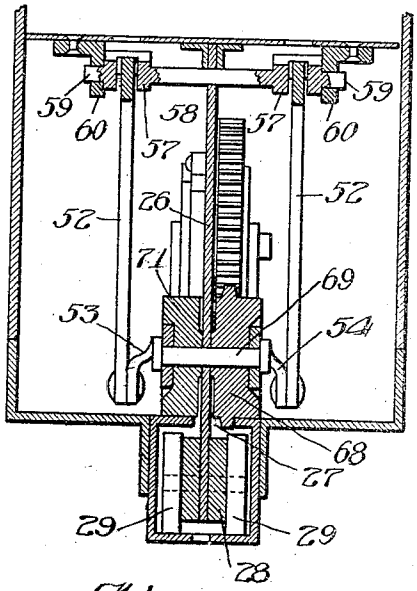


Fig. 17.

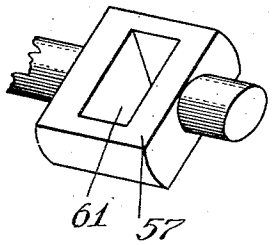
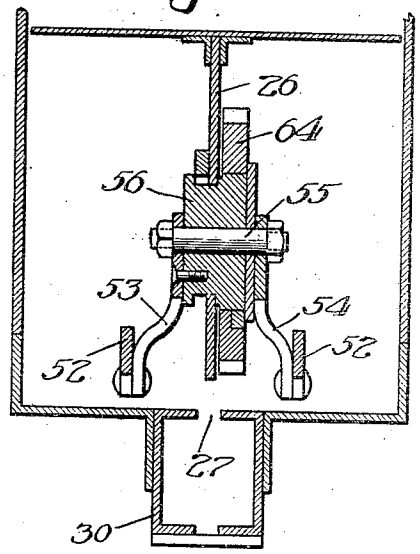


Fig. 16.



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UNITED STATES PATENT OFFICE.

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HAY-PRESS.

943,656. Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed January 28, 1905. Serial No. 243,105.

To all whom it may concern:

Be it known that I, JOSEPH DAIN, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Hay-Presses, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to hay-presses, and has for its object to provide a baling-press with means for automatically folding down the hay and holding it down as the plunger advances. So far as I am aware, prior to my invention this action of folding down and holding down, the hay in the feeding-chamber in advance of the plunger has never been secured.

In addition, my invention comprises various other features of improvement over prior constructions,—such improvements relating to the construction, arrangement and operation of the feeding-devices and other parts of the press, all as hereinafter described and as illustrated in the drawings.

What I regard as new is set forth in the claims.

In the accompanying drawings, which illustrate my improvements as applied to a pull-power press of the type illustrated and described in my pending application No. 129,680, filed November 1, 1902,—Figure 1 is a side view of my improved press in position for use; Fig. 2 is a plan view thereof; Fig. 3 is an enlarged detail,—being a partial side view of the feeding and baling chambers, with adjacent parts; Fig. 4 is a plan view of the parts shown in Fig. 3; Fig. 5 is a partial longitudinal section of the feeding-chamber and adjacent parts; Figs. 6, 7 and 8 are similar views, showing the operating-parts in a different stage of their operation; Fig. 9 is a view similar to Fig. 3, showing the opposite side of the press; Fig. 10 is a perspective view, partly in section, showing part of the mechanism for reciprocating the plunger-head; Fig. 11 is a perspective view of a part of the plunger-head and cover-plate; Fig. 12 is an end view of the press; Fig. 13 is a partial longitudinal section, illustrating the construction of the gears for operating the folding-fingers; Fig. 14 is a similar view, showing the parts at the opposite side of the press; Fig. 15 is a vertical cross-section on line 15—15 of Fig. 13; Fig. 16 is a vertical cross-section on line 16—16 of Fig. 13; and Fig. 17 is a partial perspective view of one of the rocking-guides for the folding-fingers.

Referring to the drawings,—A indicates the baling-case, which is provided with the usual side-plates 20 at the sides of the feeding-chamber and the usual angle-irons 21 and side strips 22, forming the baling-chamber.

23 indicates any suitable adjusting-mechanism for regulating the tension upon the bales.

24 indicates extension side-plates, rising from the side plates 20 and forming substantially a hopper to receive the hay fed into the press and direct it into the feeding-chamber.

25 (Fig. 5) indicates a reciprocating plunger-head, which is adapted to move through the feeding-chamber B into the baling-chamber C. As shown in Fig. 5, the plunger-head 25 is provided at the rear with a central longitudinal web 26 which extends down through a slot 27 (see Figs. 15 and 16) in the bottom of the baling-case and is connected with a truck 28, which extends under the baling-case and is mounted on rollers 29.

As shown in Figs. 10, 15 and 16, an inclosed guideway 30 is provided under the baling-case to receive and support the truck 28.

31 indicates a connecting-rod, pivotally connected at its rear end with the forward portion of the truck 28 by a pivot 32, and at its forward end to a swinging arm 33 which is adapted to be engaged and rocked by the arms 34 of a three-armed lever 35, as shown in Fig. 2. The lever 35 is provided with a sweep 36, for rotating it by horse-power. The lever 35 is mounted upon a suitable frame 37, which carries the front axle 38 and is connected with the baling-case by an extensible reach 39. The rear axle is connected with the baling-case in the usual way.

41 indicates a cover-plate, connected with the upper edge of the plunger-head 25 and extending rearwardly therefrom, as shown in Figs. 5, 6 and 11.

42 indicates a spring, which is connected at its rear end with a fixed portion of the frame of the baling-case, and at its forward end is connected with the plunger-head truck 28,—preferably by means of a hook 43, as shown in Fig. 5. The spring 42 acts to retract the plunger-head after each actuation thereof.

As thus far described, it will be apparent that when the sweep 36 is rotated in the direction indicated by the arrow in Fig. 2, the connecting-rod 31 will be drawn forward, or to the right, as shown in Fig. 2,—thereby drawing the plunger through the feeding-chamber into the baling-chamber; and that when the active arm 34 of the lever 35 passes out of engagement with the arm 33, the plunger-head will be retracted by the action of the spring 42. When the plunger-head 25 enters the baling-chamber the cover-plate 41 will lie over the feeding-chamber and prevent the admission of hay thereinto back of the plunger-head.

For initially pressing the hay deposited between the extension-plates 24 down into the feeding-chamber, I provide presser-fingers 44 which are mounted upon a transverse shaft 45 fitted in suitable bearings on top of the baling-case at the forward end of the feeding-chamber B, as shown in Figs. 5 and 6. Said presser-fingers are arranged to swing downward and backward, to press the hay down into the feeding-chamber. As shown in Fig. 4, said fingers are set a suitable distance apart, and are preferably three in number; but any other suitable number of presser-fingers may be used.

As shown in Fig. 3, the shaft 45 is provided with a downwardly-extending arm 46, which is connected by a connecting-rod 47 with a crank 48 carried by a crank-shaft 49, as shown in Figs. 3 and 6. The crank-shaft 49 is mounted in suitable bearings in the side plates 20.

50 indicates an arm carried at the inner end of the crank-shaft 49,—said arm being arranged to extend down opposite its supporting side-plate into the feed-chamber, as best shown in Figs. 5 and 6. The arm 50 is so adjusted with reference to the presser-fingers 44 that when said fingers are in their vertical or inoperative position, as shown in Fig. 5, said arm extends backward and downward in the path of the plunger-head, as shown in Figs. 4 and 5. The spring 51, shown in Fig. 3, serves to hold said arm normally in this position. When the plunger-head moves forward under the action of the horsepower-mechanism it engages the arm 50, swinging it forward, as shown in Fig. 6,—finally passing under said arm, as shown in Figs. 7 and 8. When said arm is swung forward, as described, it rocks the crank-shaft 49, which, through the connecting-rod 47, rocks the arm 46 and shaft 45,—thereby moving the fingers 44 downward upon the hay. When the plunger-head moves under the arm 50 said arm rides upon the cover-plate 41, as shown in Figs. 7 and 8,—thereby holding the fingers 44 in a more or less nearly horizontal position. The retraction of the plunger permits the fingers 44 to return to their vertical position, under the stress of the spring 51. In addition to the presser-fingers 44, I provide folding-fingers, which not only coöperate with the presser-fingers in initially pressing the hay down into the feeding-chamber, but which also still further fold down the hay in advance of the plunger and hold it down, so that it is properly acted upon by the plunger-head. Said folding-fingers, moreover, are arranged to move with the plunger-head, so that they serve to retain the hay in its folded-down condition, and do not permit it to escape until it is carried into the baling-chamber by the plunger. By this construction, all loose ends are folded into the bale,—thereby insuring the formation of a smooth, neat bale.

52 indicates the folding-fingers, which, as shown in Fig. 15, are preferably two in number and are carried by crank-arms 53—54 secured by a bolt 55 at opposite sides of a hub 56 fitted in a suitable bearing in the web 26, as shown in Fig. 16. Said arms 53—54 are rigidly connected with said hub, so that they rotate therewith. The fingers 52 extend forward and upward from the arms 53—54, passing through guides 57 placed in the angle between the plunger-head 25 and cover-plate 41, as shown in Fig. 5. Said guides 57 are in the form of blocks, connected by a rod or shaft 58,—said blocks having trunnions 59 which fit in suitable bearings 60 depending from the cover-plate 41, as shown in Fig. 15. Each block 57 is provided with an opening 61, in which the appropriate finger 52 is adapted to move.

62 (see Fig. 13) indicates slots in the upper portion of the plunger-head 25, for the passage of the fingers 52. 63 indicates similar slots in the forward end of the cover-plate 41, for a similar purpose.

The arrangement of the parts just described is such that by the rotation of the hub 56 in the direction indicated by the arrows in Figs. 5 to 8, the fingers 52 are projected in the manner illustrated therein,—first rising in a more or less vertical position through the slots 63, thence swinging forward and downward until they finally assume a substantially horizontal position, as shown in Fig. 8. This action of the fingers 52 is made to coincide with the forward movement of the plunger-head, as will be hereinafter described.

As illustrated in Fig. 7, the fingers 52 cross the presser-fingers 44,—said fingers being placed out of alinement with each other in order to permit of such action.

The action above described is caused to take place, and is automatically effected by, the forward movement of the plunger-head, by means of an apparatus which will now be described. As illustrated in Fig. 16, the hub 56 carries a gear 64, placed at one side of the web 26,—said gear being connected

with said hub by a pawl 65 which engages a notch 66 in the periphery of said hub, as shown in Fig. 13. A spring 67 serves to press the pawl 65 inward against the periphery of the hub, as shown. The pawl 65 is arranged so that rotation of the gear 64, in the direction indicated by the arrow in Fig. 6, effects the rotation of the hub 56. Reverse rotation of the gear 64, however, is without effect upon said hub.

68 indicates a pinion, carried by a transverse shaft 69 mounted in a suitable bearing in the web 26, as shown in Figs. 13 and 15. Said pinion meshes with the gear 64, and also with a rack 70 in the bottom of the baling-case, which extends longitudinally thereof, as best shown in Figs. 4, 5 and 13. By this construction, when the plunger-head moves forward the pinion 68 is caused to rotate by its engagement with the stationary rack 70, and consequently rotates the gear 64 and hub 56,—the result being that the folding-fingers 52 are operated in the manner previously described. The return movement of the plunger-head, however, has no effect upon the fingers 52, for reasons already given. If desired, a rack similar to the rack 70 could be provided at the opposite side of the web 26, and an additional pinion be provided for engagement therewith; but I prefer to employ only one rack, and to provide a roller 71 upon the shaft 69 adjacent to the pinion 68, to assist said pinion in supporting said shaft, as shown in Fig. 15.

72 indicates a pawl, mounted on the web 26 at the opposite side thereof from the gear 64,—which pawl, as shown in Fig. 14, fits in a notch 73 in the hub 56 and is held in engagement therewith by a spring 74. The object of the pawl 72 is to prevent reverse rotation of said hub during the reverse movement of the plunger-head.

It will be noted that the rack 70 extends to the rear end of the baling-case, as illustrated in Figs. 5 and 13. This provides for adjusting the action of the fingers 52, since by moving the truck 28 back until the pinion 68 moves out of engagement with the rack 70, said pinion, and the gear 64, may be rotated, independently of movement of the plunger-head, until the desired adjustment is secured. By this means the action of the fingers 52 may be properly timed with relation to the position of the plunger-head and the presser-fingers 44.

71 indicates rollers, which carry the plunger-head.

75—76 indicate the rear wheel-spindles.

77 indicates the usual stops in the sides of the baling-chamber.

When the parts are in the position shown in Fig. 5, the folding-fingers 52 are about to be projected, but the plunger-head lies a short distance from the arm 50 which operates the presser-fingers 44. It will be observed, however, that the action of the presser-fingers 44 is quicker than that of the folding-fingers 52, since, as illustrated in Figs. 6, 7 and 8, the presser-fingers 44 complete their stroke a considerable time before the folding-fingers 52 complete their movement. The arrangement is such that as the plunger-head advances into the feeding-chamber, the folding-fingers begin to project through the cover-plate 41. As soon as the plunger-head strikes the arm 50, the presser-fingers are folded down toward the advancing folding-fingers,—the two sets of fingers coöperating to press and fold the hay down into the feeding-chamber. After the presser-fingers have reached the limit of their stroke the folding-fingers continue to advance between them, and are gradually turned down to their horizontal position,—pressing the hay down to the level of the top of the baling-chamber, as shown in Fig. 8. They then are gradually withdrawn as the plunger-head advances,—retaining their substantially horizontal position, however, until the hay is carried into the baling-chamber by the plunger.

So far as I am aware, no one has heretofore provided for a similar operation. I believe myself to be the first to provide a plunger-head with folding-devices moving therewith and acting to fold the hay down in advance of the plunger. I also believe myself to be the first to provide traveling folding-devices arranged to act automatically to fold down the hay in the manner described. These features, therefore, are claimed broadly.

I wish it to be understood further that my invention in other respects is not restricted to the specific details of the construction described, except in so far as they are particularly claimed, but includes, generically, the subject-matter of the broader claims.

That which I claim as my invention and desire to secure by Letters Patent is,—

1. In a hay-press, a plunger, hay-folding means mounted thereon and traveling therewith and acting to fold the hay down in advance of the plunger as the plunger advances, and means for actuating said hay-folding means.

2. In a hay-press, a plunger, hay-folding means mounted thereon and traveling therewith, and means operated by the reciprocation of the plunger for actuating said hay-folding means, to fold the hay down in advance of the plunger as the plunger advances.

3. In a hay-press, a plunger, and swinging hay-folding means mounted thereon and traveling therewith, and acting to fold the hay down in advance of the plunger as the plunger advances.

4. In a hay-press, a plunger, swinging

hay-folding means mounted thereon and traveling therewith, and means operated by the reciprocation of the plunger for actuating said hay-folding means, to fold the hay down in advance of the plunger as the plunger advances.

5. In a hay-press, a plunger, pull-mechanism for actuating said plunger to compress the hay, hay-folding means mounted on said plunger and traveling therewith, and acting to fold the hay down in advance of the plunger and means for actuating said hay-folding means.

6. In a hay-press, a plunger, pull-mechanism for actuating said plunger to compress the hay, folding-means mounted on said plunger and traveling therewith, said folding-means being adapted to be projected in advance of the plunger for folding down the hay, and means for actuating said hay-folding-means, substantially as described.

7. In a hay-press, a plunger, pull-mechanism for actuating said plunger to compress the hay, folding-means mounted on said plunger and traveling therewith, said folding-means being adapted to be projected in advance of the plunger for folding down the hay, and means operated by the forward movement of the plunger for actuating said hay-folding means, substantially as described.

8. In a hay-press, a plunger, hay-folding means mounted on and traveling with the plunger for folding down the hay as the plunger advances, and means for actuating said folding means.

9. In a hay-press, a plunger, hay-folding means mounted on and traveling with the plunger for folding down the hay in advance thereof, and means operated by forward movement of the plunger for actuating said folding-means, substantially as described.

10. In a hay-press, a plunger, traveling-means mounted on and traveling with the plunger and adapted to be projected in advance thereof for pressing down the hay as the plunger advances, and means for operating said traveling-means, substantially as described.

11. In a hay-press, a plunger, traveling-means mounted on and traveling with the plunger and adapted to be projected in advance thereof for pressing down the hay, and means operated by the forward movement of the plunger for actuating said traveling-means, substantially as described.

12. In a hay-press, a plunger, means mounted on the plunger and traveling therewith and adapted to be projected in advance thereof for pressing down the hay as the plunger advances, and actuating-mechanism therefor, substantially as described.

13. In a hay-press, a plunger, hay-folding means mounted on the plunger and traveling therewith for pressing down the hay as the plunger advances, and means for actuating said folding-means, substantially as described.

14. In a hay-press, a plunger, hay-folding means mounted on the plunger and traveling therewith for pressing down the hay in advance of the plunger, and mechanism for projecting said folding-means in advance of the plunger as the plunger moves forward to compress the hay, substantially as described.

15. In a hay-press, a plunger, means mounted on and traveling with the plunger and adapted to be projected in advance thereof for holding down the hay in front of the plunger, and means for withdrawing said projecting-means when the plunger is retracted, substantially as described.

16. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a reciprocating plunger, and means mounted on and actuated by the movement of the plunger for holding down the hay in advance of the plunger, as the plunger advances.

17. In a hay press, a plunger, a hay-folding device carried thereby and traveling therewith, means for actuating said folding device to fold down the hay in advance of the plunger, a hay-folding device mounted on the baling case, and means for actuating the latter hay-folding device.

18. In a hay press, a plunger, a hay-folding device carried thereby and traveling therewith, means for actuating said folding device to fold down the hay in advance of the plunger, a hay-folding device mounted on the baling case, and means operated by the forward movement of the plunger for actuating the latter hay-folding device.

19. In a hay-press, a plunger, oppositely-swinging hay-folding devices, and means for operating said folding-devices, to fold down the hay as the plunger advances.

20. In a hay-press, a plunger, oppositely-swinging hay-folding devices adapted to press down the hay as the plunger advances, and means operated by the forward movement of the plunger for actuating said folding devices.

21. In a hay-press, a plunger, oppositely-swinging intermeshing hay-folding devices adapted to press the hay down in advance of the plunger, and means for operating said folding-devices, substantially as described.

22. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, and a plurality of hay-folding devices for pressing down the hay in the feeding-chamber, and means for actuating said hay-folding devices to fold down the hay in advance of the plunger as the plunger advances.

23. In a hay-press, the combination of a

baling-case having a feeding-chamber and a baling-chamber, a plunger, and oppositely-disposed hay-folding devices for pressing down the hay in the feeding-chamber, and means for actuating said hay-folding devices to fold down the hay in advance of the plunger as the plunger advances.

24. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, a hay-folding device mounted on the baling-case and adapted to press the hay down into the feeding-chamber, a hay-folding device carried by the plunger and adapted to press down the hay in the feeding-chamber, and means for operating said folding-devices, substantially as described.

25. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, a hay-folding-device mounted on the baling-case and adapted to press the hay down into the feeding-chamber, a hay-folding device carried by the plunger and adapted to press down the hay in the feeding-chamber, and means operated by the movement of the plunger for actuating said folding-devices, substantially as described.

26. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, a hay-folding device mounted on the baling-case and adapted to press the hay down into the feeding-chamber, a hay-folding device mounted on the plunger and adapted to be projected in advance of the plunger for pressing down the hay in the feeding-chamber, and means for operating said hay-folding devices, substantially as described.

27. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, a hay-folding device mounted on the baling-case and adapted to press the hay down into the feeding-chamber, a hay-folding device mounted on the plunger and adapted to be projected in advance of the plunger for pressing down the hay in the feeding-chamber, and means operated by the movement of the plunger for actuating said hay-folding devices, substantially as described.

28. In a hay-press, a plunger, hay-folding fingers mounted on and traveling with the plunger, and means for projecting said fingers up above the plunger and then folding them down over the hay in advance of the plunger, as the plunger advances.

29. In a hay-press, a plunger, hay-folding fingers mounted on said plunger, and means for projecting said fingers up above said plunger and then folding them down over the hay in advance of the plunger, as the plunger advances.

30. In a hay-press, a plunger, hay-folding fingers, means for projecting said fingers up above the plunger and then folding them down over the hay in advance of the plunger, and oppositely-swinging fingers arranged to coact with said first-mentioned fingers, substantially as described.

31. In a hay-press, a plunger, hay-folding fingers connected therewith, means for projecting said fingers up above said plunger and then folding them down over the hay in advance of the plunger, and oppositely-swinging fingers arranged to coact with said first-mentioned fingers, substantially as described.

32. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on the plunger, and means for projecting said fingers up above the feeding-chamber and then folding them down over the hay therein in advance of the plunger, as the plunger advances.

33. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on the plunger, and means for projecting said fingers up above the feeding-chamber and then folding them down over the hay in said chamber in advance of the plunger, substantially as described.

34. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on the plunger, and means actuated by the movement of the plunger for projecting said fingers up above the feeding-chamber and then folding them down over the hay in said chamber in advance of the plunger, substantially as described.

35. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers, means for projecting said fingers up above the feeding-chamber and then folding them down over the hay therein as the plunger advances, and coacting folding fingers mounted on the baling-case, substantially as described.

36. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers carried by the plunger, means for projecting said fingers up above the feeding-chamber and then folding them down over the hay in said chamber in advance of the plunger, and coacting folding-fingers mounted on the baling-case, substantially as described.

37. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers carried by the plunger, means actuated by the movement of the plunger for projecting said fingers up above the feeding-chamber and then folding them down over the hay in said chamber in advance of

the plunger, and coacting folding-fingers mounted on the baling-case, substantially as described.

38. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a reciprocating support, hay-folding means mounted on said support, and means operated by the reciprocation of said support for actuating said folding-means, to fold down the hay as the plunger advances.

39. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, longitudinally-movable hay-folding means, a rack, and means engaging said rack and connected with said hay-folding means for actuating the same to fold down the hay in advance of the plunger, substantially as described.

40. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on said plunger, a gear for operating said folding-fingers, and a rack carried by the baling-case for rotating said gear as the plunger advances, substantially as described.

41. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on said plunger, a rack, and ratchet-mechanism operatively engaging said rack for actuating said hay-folding fingers, substantially as described.

42. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on said plunger, rotary mechanism for actuating said fingers, and means operated by the forward movement of the plunger for actuating said rotary mechanism, substantially as described.

43. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers mounted on said plunger, rotary mechanism for actuating said fingers, means operated by the forward movement of the plunger for actuating said rotary mechanism, and rocking-guides for said fingers, substantially as described.

44. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, a cover-plate carried by said plunger, hay-folding fingers carried by said plunger and adapted to be projected in advance of the plunger, and means for actuating said fingers, substantially as described.

45. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, a crank carried by the plunger, hay-folding fingers connected with said crank, means operated by the forward movement of the plunger for rotating said crank, and rocking-guides for said fingers, substantially as described.

46. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding means pivotally mounted upon the baling-case, and an arm connected with said folding-means for actuating the same, said arm being engaged and actuated by the forward movement of the plunger for operating said hay-folding means, to fold down the hay in advance of the plunger as the plunger advances.

47. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding means pivotally mounted upon the baling-case, an arm connected with said folding-means for actuating the same, said arm being arranged to be actuated by the forward movement of the plunger for operating said hay-folding means, to fold down the hay in advance of the plunger as the plunger advances, and a spring for restoring said folding-means to inoperative position, substantially as described.

48. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding fingers pivotally mounted upon the baling-case and adapted to swing down over the feeding-chamber, and an arm connected with said fingers for rocking the same, said arm being arranged to project into the feeding-chamber in advance of the plunger, whereby as the plunger advances said arm will be engaged and operated thereby to rock said folding-fingers, to fold down the hay in advance of the plunger as the plunger advances.

49. In a hay-press, the combination of a baling-case having a feeding-chamber and a baling-chamber, a plunger, hay-folding means pivotally mounted on the baling-case above the forward portion of the feeding-chamber, hay-folding means at the rear end of the feeding-chamber and connected with the plunger and adapted to be projected thereover, and means for operating said hay-folding means, substantially as described.

50. In a hay-press, a plunger, hay-folding means, and mechanism for actuating said hay-folding means mounted on the plunger to fold the hay down in advance of the plunger as the plunger advances.

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