

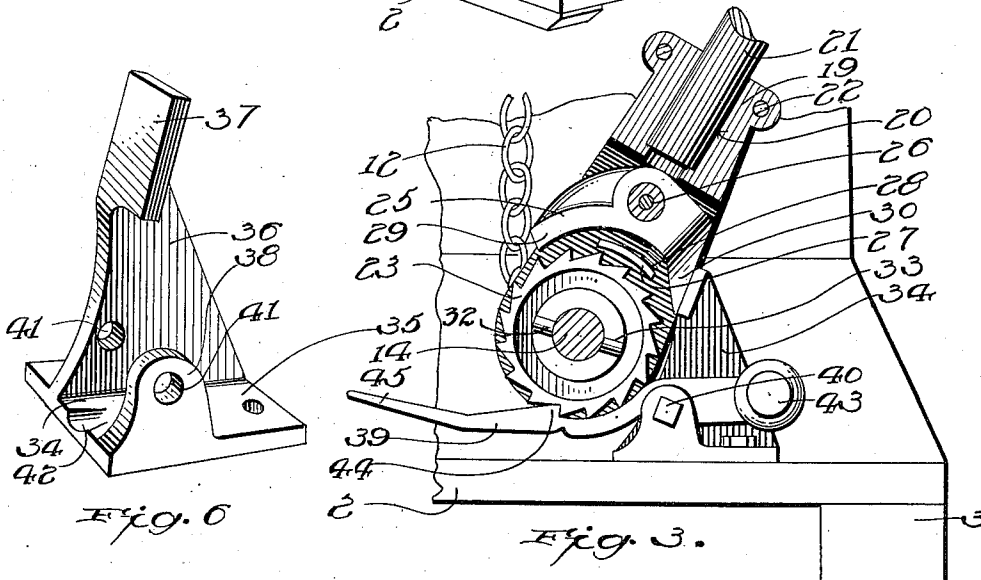
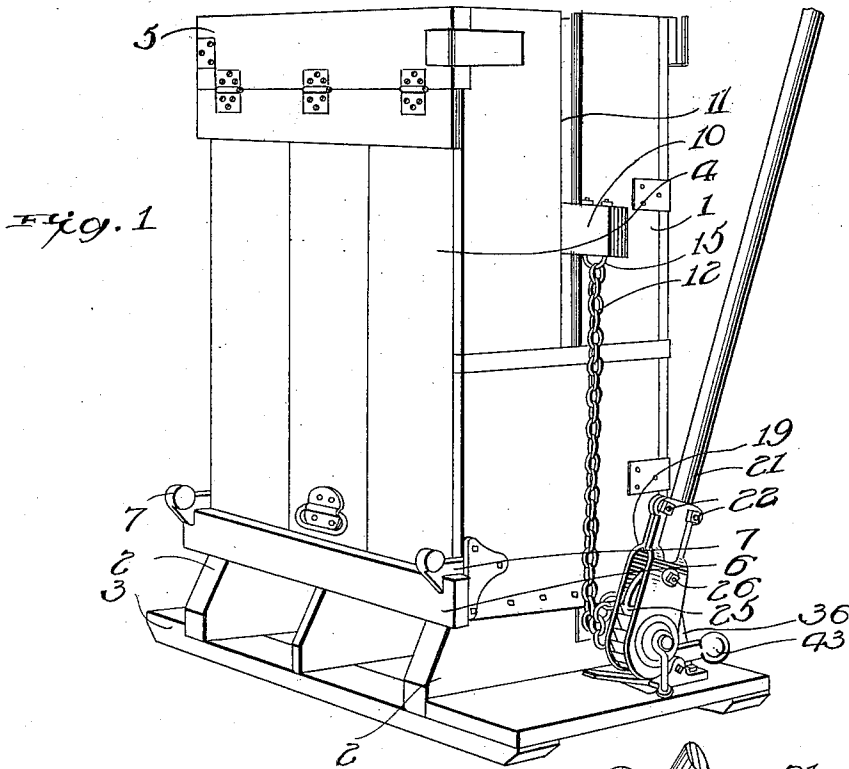
C. SCHICK.
PAPER BALER.

1,028,396.

APPLICATION FILED DEC. 28, 1911.

Patented June 4, 1912.

2 SHEETS-SHEET 1.



WITNESSES

J. M. McCallahan

INVENTOR

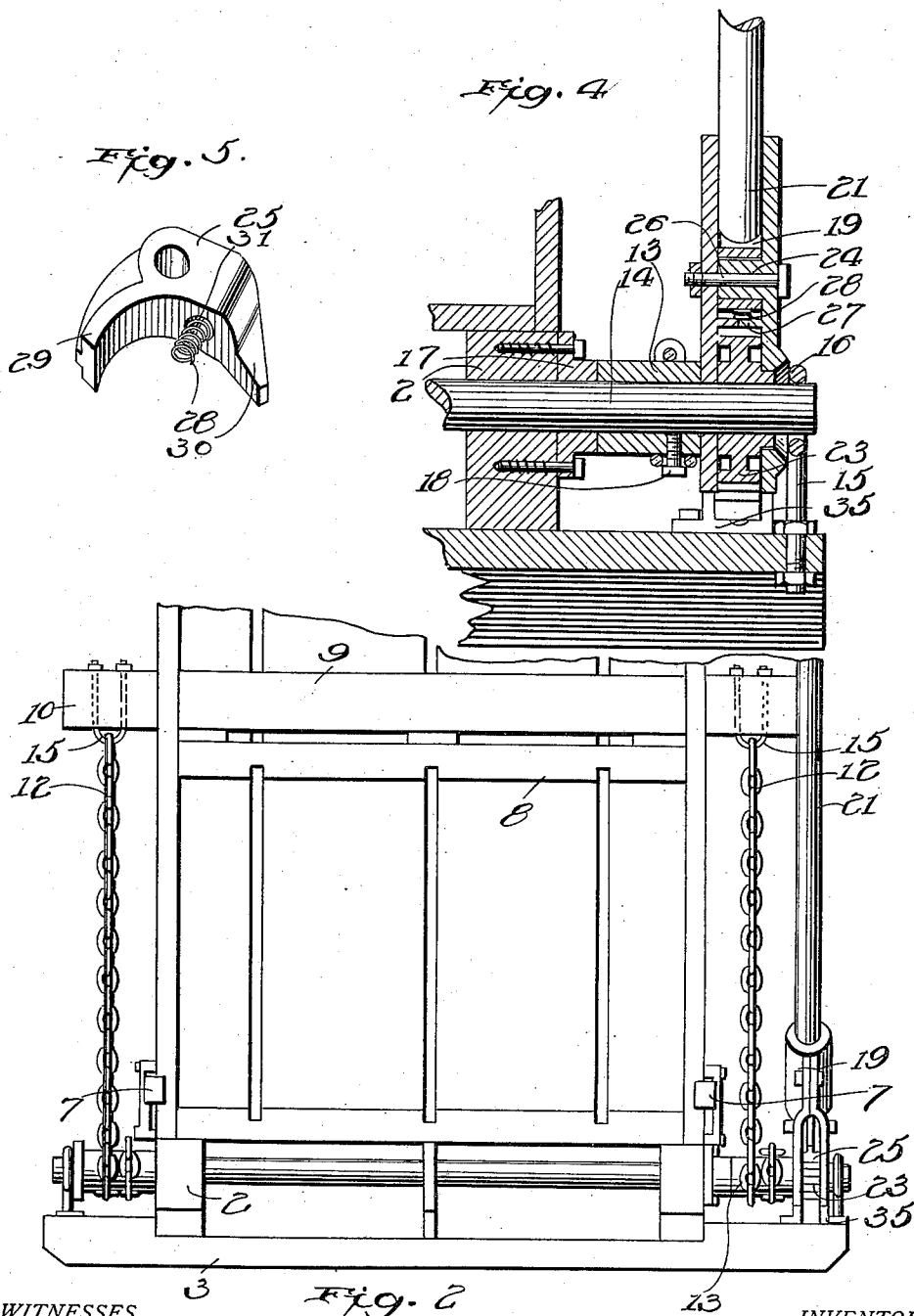
Charles Schick
By E. C. Freeman, Attorney.

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WITNESSES

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Fig. 2

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UNITED STATES PATENT OFFICE.

CHARLES SCHICK, OF DAVENPORT, IOWA.

PAPER-BALER.

1,028,396.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed December 28, 1911. Serial No. 668,313.

To all whom it may concern:

Be it known that I, CHARLES SCHICK, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Paper-Balers, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to baling presses of the manually operable type, and has for its object the production of an efficient means for releasing the ratchet of a baling press whereby the press may be easily released, and the contents thereof removed.

15 Another object of this invention is the production of a simple and efficient press operating mechanism which consists of the minimum number of parts, and which is efficient in operation.

20 With these and other objects in view, this invention consists of certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described and claimed.

25 In the drawings: Figure 1 is a perspective view of the press. Fig. 2 is a front elevation thereof with the top broken away. Fig. 3 is a side elevation of the ratchet mechanism showing one plate removed therefrom. Fig. 4 is a transverse section through one of the ratchets. Fig. 5 is a detail perspective of the spring pawl carried by the ratchet head. Fig. 6 is a detail perspective of the releasing bracket.

30 Referring to the drawings by numerals 1 designates the casing which is mounted upon a suitable base 2, having at its end suitable platforms 3. A door 4 is carried by the casing hinged at its upper end to a transverse beam 5. The door 4 is provided at its lower end with a transverse bar 6 which bar is adapted to be engaged by the latches 7 pivotally secured to the frame. The usual platen 8 is mounted on a transversely extending bar 9 which has its projecting ends 10 extending through the vertically extending slots 11 formed in the casing 1. This bar 9 is operated by means of chains 12, which chains have their lower ends connected to the drums 13. These drums 13 are

supported by means of a shaft 14. The outer ends of the shaft 14 are supported by means of vertically extending bolts 15 having eyes 16 engaging the outer ends of said shaft. Bearings 17 are carried upon each side of the press engaging the base 2, and these bearings engage the inner ends of the drums 13. Each of the chains 12 is connected to one of the drums 13 by means of the bolt 18.

A ratchet casing 19 is carried upon one side of the press, and is journaled upon the shaft 14 and this casing comprises an inner and outer section. Each of the sections is provided with a pocket portion 20 within which is adapted to fit the operating handle 21 of the ratchet mechanism. These sections are held together by means of transversely extending bolts 22 as is illustrated in Fig. 1. A ratchet wheel 23 is journaled upon the shaft 14 between the inner and outer sections of the ratchet casing 19 and the outer section is provided with an inwardly projecting collar portion 24 upon which collar portion is pivotally mounted the dog or pawl 25. A bolt 26 passes through this collar 24, and assists in holding the inner and outer sections of the ratchet casing together. Each of the sections of the ratchet casing 19 is provided with an inwardly extending shelf portion 27 which abut at their inner ends and form a supporting platform for the spring 28. The pawl 25 is provided with a ratchet engaging end 29, and a rearwardly extending bracket engaging lip 30. The pawl 25 is also provided with a socket 31 for holding the coil spring 28 in engagement with the dog or pawl 25. The ratchet wheel 23 is keyed to the shaft 14 by means of a transverse pin 32 fitting in the sockets 33.

A releasing bracket 34 is carried upon one of the extending platforms 3 of the base 2 adjacent the ratchet casing 19. This bracket 34 comprises a base 35 having an upwardly extending dog engaging portion 36, which portion carries a laterally extending dog engaging lip 37. An ear 38 is also formed upon the bracket 34 and a dog 39 is pivotally secured to the bracket 34 by means of the bolt 40 passing through the

apertures 41 formed in the portion 36 and ear 38. The base 35 of the bracket 34 is provided with a cut-out portion 42 for making more room for the movement of the dog 39. The dog 39 comprises an elongated body portion having a weighted end 43 and a ratchet engaging tooth 44. The forwardly extending end 45 of the dog 39 allows this dog to be released from the ratchet when it is so desired by the operator merely placing his foot upon the forwardly extending end 45.

When it is desired to operate the press, the matter to be baled is placed in the casing 1 beneath the platen 8 and pressed by oscillating the handle 21 which will cause the operating pawl 25 to rotate the gear wheel 23 thereby imparting rotary movement to the shaft 14. This, of course, will cause the platen 8 and the bar 9 to descend within the press in view of the fact that the chains 12 will be wound upon the drums 13. When the matter within the press has been fully compressed the ratchet casing is thrown backwardly by means of the handle 21 so that the lip 30 of the pawl 25 will engage the dog engaging lip 37, and kick the tooth engaging end of the dog or pawl out of engagement with the ratchet wheel 23. The dog 39 will then hold the chain against motion and when it is so desired to release the chain and allow the contents of the press to be removed therefrom, the operator places his foot upon the forward end of the dog 39 and leaves the ratchet wheel 23 free to rotate.

From the foregoing description, it will be obvious that a very efficient releasing device has been produced whereby the dog may be kicked out of engagement with the ratchet merely by swinging the operating handle 21 to the desired position. It will also be obvious that the operator may also control the dog 39 by means of his foot thereby doing away with any complicated or undesirable mechanism to handle.

What is claimed is:—

1. A baling press comprising a casing, a base, a transverse shaft carried by said base, a chain, a drum mounted upon said shaft, said chain wound upon said drum, a ratchet casing carried by said shaft, a dog carried by said casing and cooperating with said drum for rotating the same, and means carried by said base and cooperating with said dog for releasing the same and for allowing said chain to be unwound from said drum when said ratchet casing is swung to a certain position.

2. In a ratchet device of the class described the combination with a casing, a drum, a ratchet wheel carried by said casing and cooperating with said drum, a chain

wound upon said drum, a dog pivotally mounted within said casing, of a bracket cooperating with said dog being adapted to engage said dog for automatically throwing said dog out of engagement with said ratchet when said casing is swung to a certain position.

3. A ratchet device for a baling press comprising a casing, a ratchet wheel carried thereby, a drum associated therewith, a dog pivotally mounted within said casing and being provided with a rearwardly extending lip, and means cooperating with said dog and being adapted to engage said rearwardly extending lip for automatically kicking said dog out of engagement with said ratchet wheel for allowing said drum to rotate.

4. In a ratchet device of the class described, the combination with a casing, a ratchet wheel carried thereby, a drum associated therewith, a dog pivotally mounted within said casing, of a bracket provided with an upwardly extending portion, a laterally extending lip carried thereby, said dog being provided with a rearwardly extending lip, means for normally holding the forward end of said dog in engagement with said ratchet wheel, said rearwardly extending lip of said dog being adapted to engage said lip of said bracket for kicking said dog out of engagement with said ratchet wheel when said casing is swung to the desired position.

5. In a ratchet device of the class described the combination with a ratchet casing comprising a plurality of sections, a ratchet wheel carried thereby, a dog pivotally secured between said sections and provided with a ratchet engaging end, of a rearwardly extending lip formed upon said dog, a flange formed upon each of said sections and being adapted to abut along their inner edges, springs supported by said flanges and engaging said dog for holding the same in engagement with said ratchet, and means cooperating with said dog for automatically kicking the same out of engagement with said ratchet.

6. In a ratchet device for a baling press the combination with a casing, a drum, a ratchet wheel carried within said casing, of a dog pivotally carried by said casing, a rearwardly extending lip formed upon said dog, a bracket adjacent said casing and being provided with an upwardly extending portion, a dog engaging lip carried by the upper end of said upwardly extending portion and being adapted to engage said lip of said dog for automatically kicking the same out of engagement with said ratchet wheel when said casing is swung to the desired position, an ear formed upon said

bracket and extending parallel with said
upwardly extending portion, a dog mounted
between said ear and upwardly extending
portion, and means formed upon said last
5 mentioned dog for preventing the rotation
of said gear wheels when in engagement
therewith.

In testimony whereof I hereunto affix my
signature in presence of two witnesses.

CHARLES SCHICK.

Witnesses:

HENRY H. JEBENS,
W. H. MARTIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
