(No Model.)

A. A. GEHRT.

BALING PRESS.

No. 434,775. Patented Aug. 19, 1890.

Fig. I.

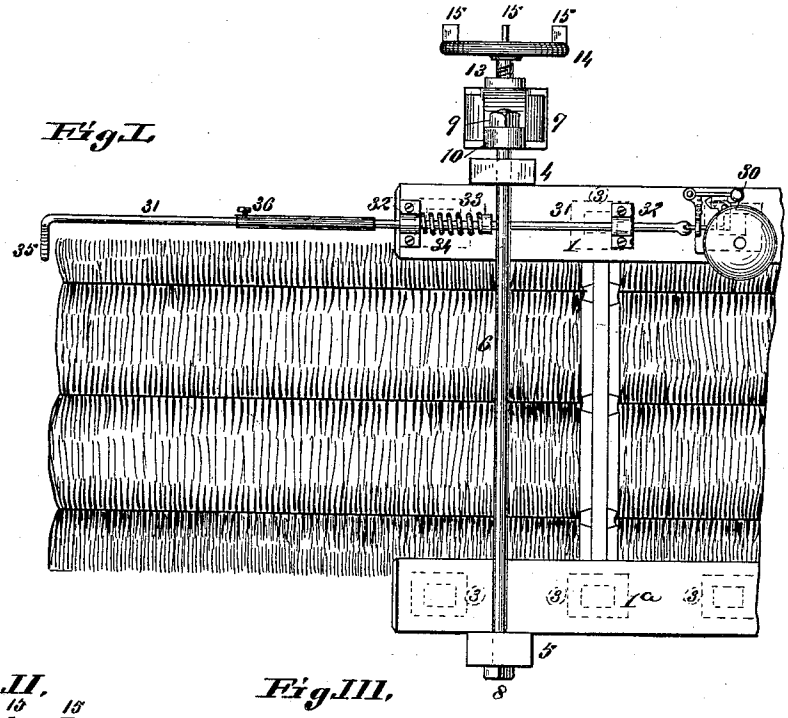


Fig. II.

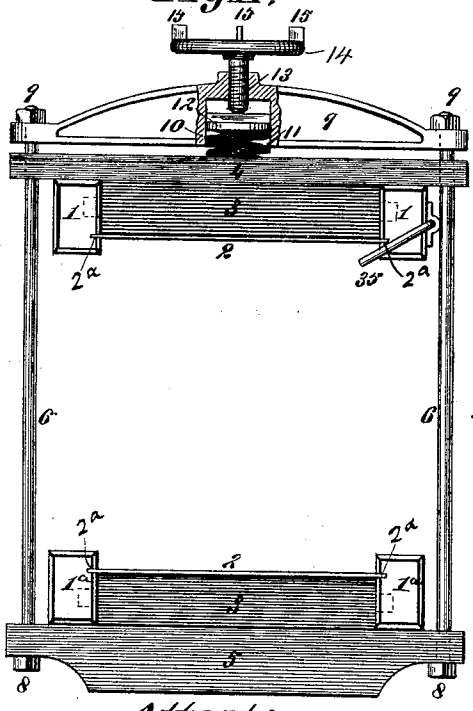
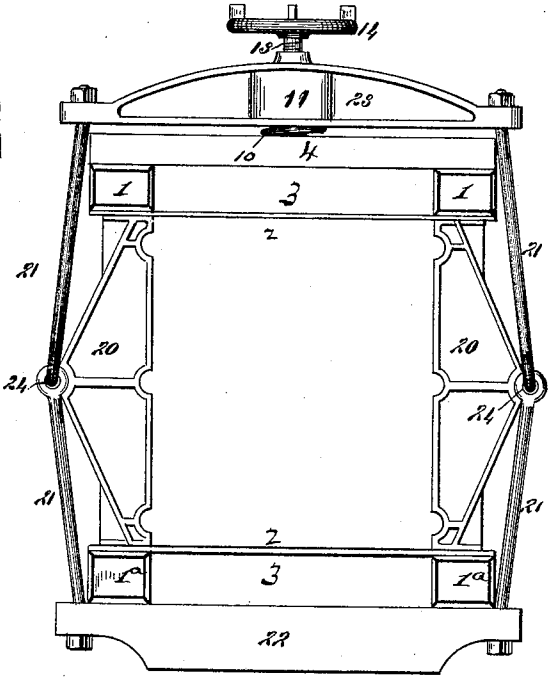


Fig. III.



Attest;
Charles Pickles.
E. Arthur

Inventor;
Albert A Gehrt
By Knight Bros
Atty's

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT A. GEHRT, OF QUINCY, ILLINOIS, ASSIGNOR TO THE COLLINS PLOW COMPANY, OF SAME PLACE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 434,775, dated August 19, 1890.

Application filed September 7, 1889. Serial No. 323,238. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. GEHRT, 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.

My invention relates to certain improvements in the delivery end of the press, and particularly to a means for contracting the baling-chamber, to regulate the freedom of delivery, and to an alarm to insure a uniform size of bales; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a detail side elevation showing the rear end of a baling-press with my improvements applied thereto. Fig. II is a rear end elevation of the press, partly in section. Fig. III is a rear end elevation illustrating a construction wherein the sides, as well as the top and bottom walls of the press, are adjustable.

Referring to the drawings, 1 1^a represent the main timbers, forming the four corners of the baling-chamber, 1 being the upper timbers and 1^a the lower timbers.

2 represents thin metallic plates fitting in grooves 2^a of the timbers 1 1^a and forming the top and bottom of the chamber, and which are braced or backed at intervals by cross-pieces 3, framed into the timbers 1 1^a, (see dotted lines, Figs. I and II,) and which serve to prevent the plates 2 from springing outwardly under the pressure of the material being baled.

4 represents an upper cross-block supported on the upper timbers, and 5 a lower cross-block beneath the lower timbers.

6 represents tie-rods passing through these cross-blocks and through a beam 7, located over the cross-block 4. The rods 6 have heads or nuts 8 on their lower ends beneath the cross-block 5 and heads or nuts 9 on their upper ends above the beam 7. Where nuts are employed, they provide an adjustment, as by tightening or loosening them the walls of the baling-chamber may be contracted or allowed to expand to a certain extent.

10 represents a spiral spring fitting in a socket 11 in the beam 7 and resting on the cross-block 4. Above this spring, within the socket 11, is a disk or washer 12, against which bears the lower end of a screw 13, passing up through the beam 7, with which it has threaded connection. Said screw is provided with a wheel 14, or its equivalent, at its upper end, which may have lugs or projections 15 to receive a lever, by which the screw may be turned. The screw provides another and accurate adjustment. It will thus be seen that by turning downward on the screw 13 the baling-chamber may be contracted by the plates 2 being forced toward each other, as will be plainly understood, and thus the freedom with which the material is delivered from the press may be regulated at will. If the material is delivered too freely to provide the necessary resistance to the action of the traverser in compressing the material, the delivery-chamber will be contracted, and in case of too much friction and not a sufficiently free delivery the baling-chamber would be enlarged, either result being accomplished by simply turning the nuts or screws or screw 13 down or up.

By using the spring 11 between the screw and cross-block 4 an elastic uniform pressure in the delivery end of the press is obtained, which affords a much freer discharge than would be obtained with a fixed rigid bearing between the baling-chamber and the adjusting device.

In Fig. III, I have shown a construction where the sides 20 of the baling-chamber (as well as the top and bottom 2) are made contractible by means of jointed tie-rods or links 21 on each side of the press, the links being made fast at their lower ends to a cross-block 22 and at their upper ends to a beam 23, which is provided with a screw and spring, as in my preferred form. The links 21 are jointed at 24, where they bear against the sides 20, and these links or jointed rods extend in an outward direction from their respective ends to their respective centers, so that by turning downward on the screw the action will have a tendency to straighten the links 21 and move the sides 20 inward, and at the same time the top and bottom 2 is adjusted. It

will be understood that there is nothing except the adjusting device to prevent the material being baled forcing the top and bottom 2 away from the sides 20, and by turning downward on the screw 14 this distance may be regulated so that the operative position of the top and bottom, as well as the sides, is adjustable.

30 represents an alarm in the form of a bell secured to the press, and to the trip of which is secured a rod 31. This rod is guided in brackets or boxes 32, by which it is secured to one of the corner-timbers of the press, and between one of the boxes 32 and a collar 33 on the rod is placed a spiral spring 34, the tendency of which is to force the rod inward. The outer end of the rod has an inward bend 35, which, as shown in Fig. II, projects into the path of the bales as they are delivered from the press. Just before a bale is completed its outer end comes against this bend 35 of the rod 31, and by moving the rod operates the alarm, thus producing the signal that another bale is completed.

To afford means for using the alarm on bales of different sizes, I form the rod in two sections, connected by a sleeve and set-screw 36, by which the length of the rod 31 may be adjusted.

I claim as my invention—

1. The combination of a baling-chamber having the upper main corner-timbers and the lower main corner-timbers, the thin upper and lower plates, the cross-pieces secured to the upper and lower timbers forming a backing or brace to the plates, the lower cross-block beneath the lower timbers, the upper cross-block over the upper timbers, the beam over the upper cross-block, the tie-rods and nuts connecting the lower cross-block to the beam, and a screw working through the beam, substantially as described.

2. The combination of a baling-chamber having contractible walls, a lower cross-block, a beam, an adjusting-screw, and tie-rods jointed at or near their respective centers, connecting the cross-block to the beam, and arranged to spread and close under the action of the screw, substantially as described.

3. The combination of the main timbers forming the four corners of the baling-chamber, plates forming the walls of the baling-chamber, the cross-pieces bracing said plates, the lower cross-block, the upper cross-block, the beam having a socket, the tie-rods, the screw working in the beam, the washer in the socket, and the spring between the washer and the upper cross-block, substantially as described.

4. The combination of the main timbers forming the four corners of the baling-chamber, plates forming the walls of the baling-chamber, the cross-pieces bracing said plates, the lower cross-block, the upper cross-block, the side pieces working between the plates, the jointed tie-rods, the beam having a socket, the screw working in the beam, the washer in the socket, and the spring between the washer and the upper cross-block, substantially as described.

5. The combination, with a baling-chamber, of an alarm having a trip and secured thereto, the brackets secured to the chamber, the rod sliding in said brackets connected with the alarm and having an inturned outer end and a collar, and a spring between one of the brackets and the collar, substantially as described.

6. The combination, with a baling-chamber, of an alarm having a trip and secured thereto, the brackets secured to the chamber, the two-part rod sliding in said brackets connected with the alarm and having an inturned end and a collar, a sleeve connecting the two parts of the rod and having a set-screw, and a spring between one of the brackets and the collar, substantially as described.

ALBERT A. GEHRT.

In presence of—
J. W. BROWN,
T. B. PAPE.