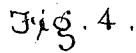
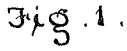


BALING PRESS.

Patented Sept. 17, 1912.

1,038,904.



Inventor

A.L. Lamar

Witnesses

L. B. James

C. E. Hunt

 $\mathbb{R}^n$

A. B. Wilson

Attorneys

1,038,904.

A. L. LAMAR.
BALING PRESS.
APPLICATION FILED APR. 4, 1912.

Patented Sept. 17, 1912.
3 SHEETS—SHEET 2.

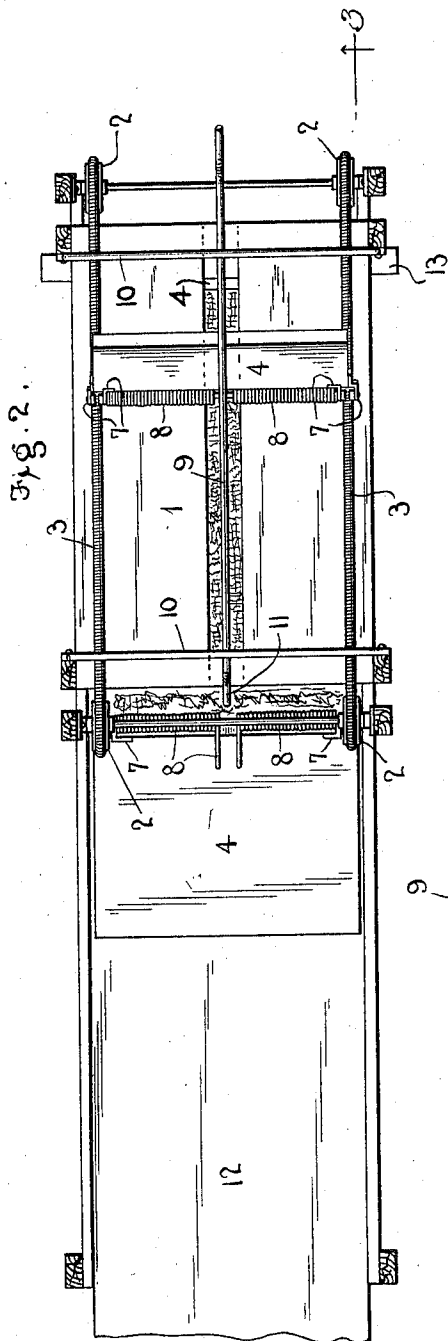


Fig. 2.

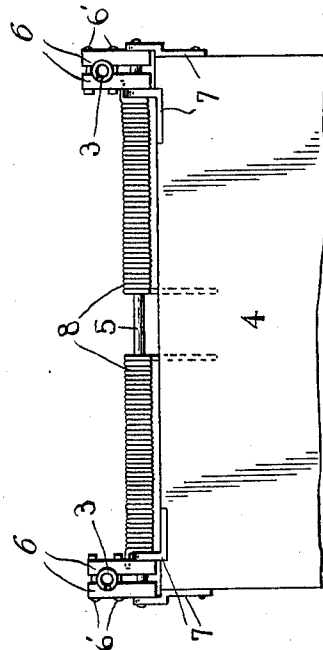


Fig. 6.

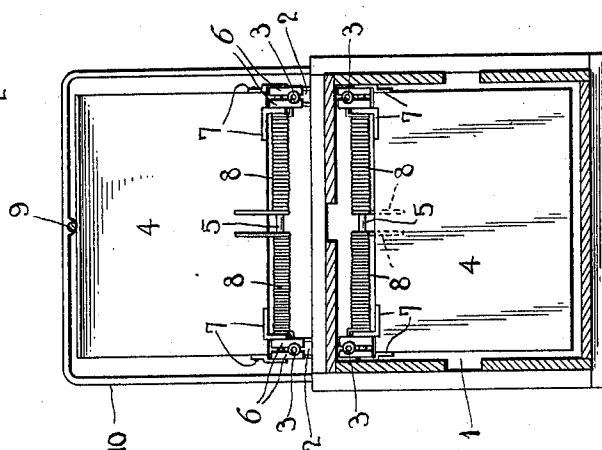


Fig. 5.

Witnesses

L. D. James
C. E. Hunt

Inventor

A. L. Lamar

by *H. B. Wilson & Co.*
Attorneys

A. L. LAMAR.

BALING PRESS.

APPLICATION FILED APR. 4, 1912.

1,038,904.

Patented Sept. 17, 1912.

3 SHEETS—SHEET 3.

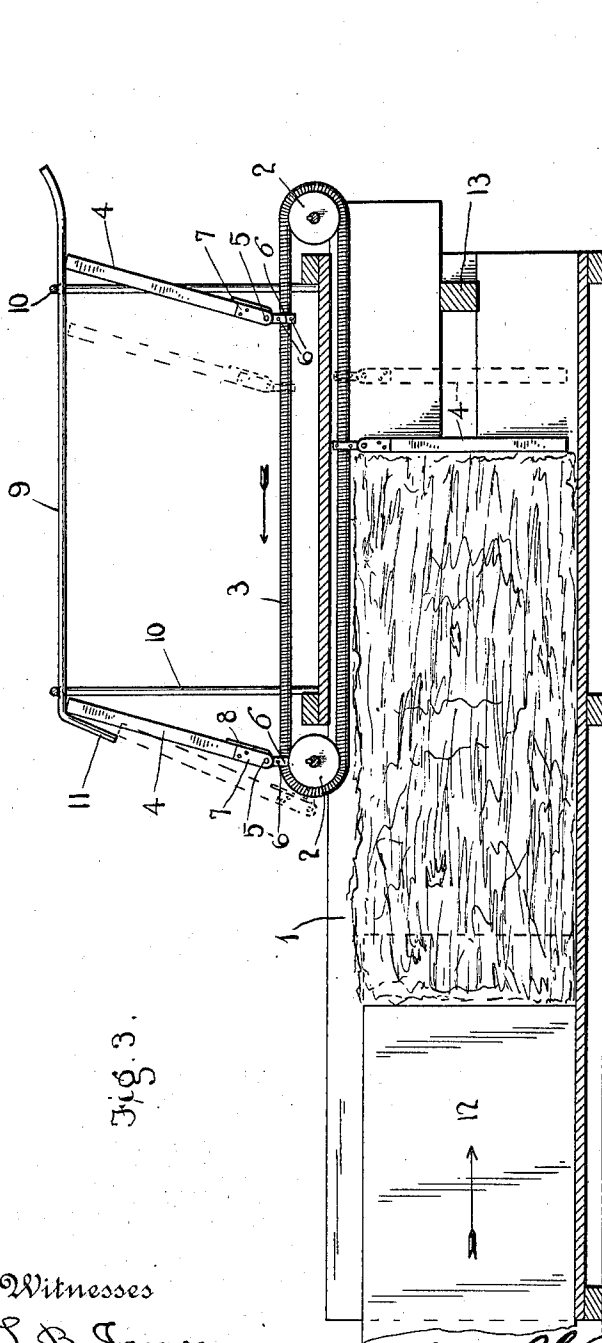


Fig. 3.

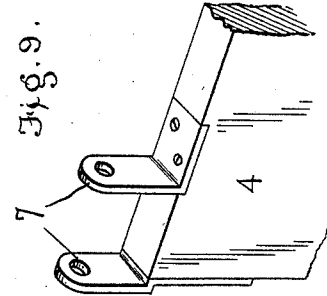


Fig. 9.

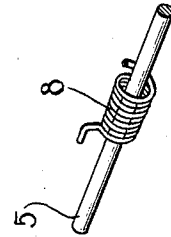


Fig. 8.

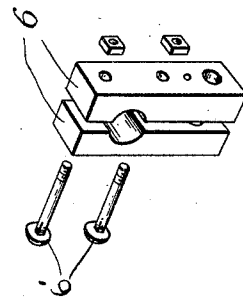


Fig. 7.

Witnesses

L. B. James

C. E. Hunt.

Inventor

A. L. Lamar

By *H. B. Wilson & Co.*

Attorneys

UNITED STATES PATENT OFFICE.

ALEXIS L. LAMAR, OF PITTSBURG, KANSAS, ASSIGNOR TO WILLIAM BARBEE AND JOHN BARBEE, BOTH OF PITTSBURG, KANSAS.

BALING-PRESS.

1,038,904.

Specification of Letters Patent.

Patented Sept. 17, 1912.

Application filed April 4, 1912. Serial No. 688,466.

To all whom it may concern:

Be it known that I, ALEXIS L. LAMAR, a citizen of the United States, residing at Pittsburg, in the county of Crawford and State of Kansas, have invented certain new and useful Improvements in Baling-Presses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in baling presses.

One object of the invention is to provide a baling press having an improved construction and arrangement of spacing blocks and means whereby the same are automatically operated to successively bring the blocks into position for spacing the bales apart while being formed, thus obviating the necessity of manually placing the blocks in position.

With this and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a side view of my improved baling press with parts broken away; Fig. 2 is a top plan view of the same; Fig. 3 is a vertical longitudinal section taken on the line 3—3 of Fig. 2 and showing in full and dotted lines the relative position of the plunger and follower blocks immediately before the plunger has reached the completion of its forward or working stroke; Fig. 4 is a similar view showing the relative position of the plunger and follower blocks when the plunger has completed its working stroke and has started on its return stroke. Fig. 5 is a vertical cross sectional view taken on the line 5—5 of Fig. 1; Fig. 6 is an enlarged side view of the inner portion of one of the follower blocks and the means whereby the same is attached to its spring operating belts; Fig. 7 is a detail perspective view of one of the attaching devices for securing the blocks to the belts; Fig. 8 is a similar view of a portion of one of the pivoted supporting rods of the blocks and the block operating spring engaged therewith; Fig. 9 is a detail perspective view of a portion of one of the follower blocks showing the hinge members or pivot lugs thereof.

Referring more particularly to the drawings, 1 denotes the baling chamber of my baling press, said chamber being here shown and is preferably in the form of a rectangular oblong box of suitable size and length. Revolvably mounted in suitable bearings on the ends of the top of the baling chamber are pairs of guide pulleys 2, engaged with which and adapted to travel around the top of the baling chamber are endless block carrying belts 3 of which there may be any suitable number, two of said belts being shown in the present instance. The belts 3 are in the form of coiled springs. In operation the upper stretches of the belts are disposed adjacent to and slide over the outer side of the top of the baling chamber, while the lower stretches of the belts pass below and adjacent to the inner side of said top of the chamber as shown.

Secured at suitable intervals to the spring belts 3 are spacing blocks 4, said blocks corresponding substantially in size to the inner side of the baling chamber to which they are carried by the belts 3. The blocks 4 are secured to the belts 3 by a pivot rod 5 and pairs of clamping blocks 6. The spacing blocks 4 are loosely connected to the pivot rod 5 by bearing plates or brackets 7 and the ends of the pivot rods 5 are engaged with the outer ends of the clamping blocks 6 as shown. The clamping blocks 6 are arranged in pairs and have their inner edges recessed to fit the curvature of the springs to which they are securely clamped by clamping bolts or screws 6'. By thus pivotally connecting the spacing blocks 4 with the rods 5 and connecting said rods with the spring belts 3, it will be seen that the blocks will be carried around by said belts and the pressure of the hay against the same in the baling chamber, thus successively bringing the blocks into position for spacing the bales apart, while being formed in the baling chamber.

Arranged on the pivot rods 5 between the pairs of clamping blocks 6 are coiled springs 8, said springs having their outer ends secured in the inner members of the pairs of clamping blocks 6, while their inner ends are extended and engaged with one side of the spacing blocks. When thus arranged the pressure of the springs 8 is exerted to swing the spacing blocks forwardly or downwardly and against a charge of hay

at the inlet end of the baling chamber, and to swing the blocks outwardly and upwardly at the discharge end of the baling chamber after a finished bale has been ejected. In order to prevent the springs 8 from throwing the blocks over or down onto the upper side of the baling chamber when being carried across said upper side, I provide a block holding rod 9 which is supported above the center of the baling chamber by bale shaped supporting frames 10 secured at their lower ends to the opposite sides of the baling chamber as shown.

The rod 9 extends throughout the entire length of the baling chamber and is disposed a sufficient distance above the top of the same to prevent the turning of the spacing blocks beneath the rod as is clearly indicated in Fig. 1 of the drawings. The end of the rod 9 above the intake end of the baling chamber is turned downwardly at a suitable angle for forming a stop finger 11 which will prevent the spacing blocks from being swung downwardly by the springs 8 as soon as they reach the intake end of the baling chamber, said finger holding the blocks in an upright position until the inner edges of the blocks have been carried downwardly around the belt guiding pulleys at this end of the baling chamber. When the block has thus been lowered until its inner edge has reached the lower side of the pulleys 2, the upper edge of the block will be disengaged from the end of the finger 11 whereupon the springs 8 will swing the block downwardly and onto the plunger 12, which at this time has completed its working stroke or pressed the last charge of hay into the baling chamber and is being retracted therefrom. As soon as the plunger has been entirely retracted from the baling chamber and passes from beneath the spacing block which was swung down thereon in the manner described, the springs 8 of said block will quickly swing the same around into the intake end of the baling chamber and against the last charge of hay pressed into the chamber by the plunger, thus separating the pressed charge of hay from the new charge which is at this time thrown into the hopper at the inner end of the baling chamber and in position to be engaged by the next forward or working stroke of the plunger which forces the same, together with the last spacing block and the spacing blocks previously swung, down through the baling chamber as will be readily understood.

Any suitable means may be employed for holding the last block at the discharge end of the baling chamber, while the hay is being pressed therein and while the pressed bale at said discharge end of the chamber is being tied by the binding wires thereof in the usual manner, said holding means

being here shown in the form of a bar 13 which is inserted across the baling chamber between the side boards thereof and immediately in front of the last pair of supporting standards, said standards forming a stop for the bar whereby the latter is held and forms a stop for the last spacing block until the bale has been tied, whereupon the bar 13 is drawn out from across the baling chamber and the last spacing block permitted to be swung upwardly by its springs 8 and the tied bale ejected. After the bale has been ejected the bar 13 is again arranged in place to receive and hold the next spacing block while the bale held thereby is being tied.

It will be understood that as the hay is forced by the plunger 12 into the baling chamber that the blocks in the chamber will be forced therethrough by this pressure of the hay or other material being baled and that this movement of the blocks in the chamber will be imparted through the coiled spring belts to the blocks on the outside of the chamber, thus bringing the latter around in position to be again forced through the baling chamber in the manner described. By constructing the belts 3 in the form of coiled springs, the belts will be permitted to stretch or give to a slight extent should the block at the intake end of the chamber be swung down upon the plunger before the same has completed its working stroke, thus preventing the pressure of the plunger from breaking the belts as would occur if the latter were constructed of chains or inelastic cables and one of the blocks should be for any reason, prematurely swung down onto the plunger before the same had completed its forward movement or working stroke.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

1. In a baling press, an endless elastic belt of longitudinally extensible material mounted to travel around one side of the baling chamber of the press, and spacing blocks suitably connected with said belt and adapted to be successively brought around thereby into operative position.

2. In a baling press, a baling chamber, guide pulleys revolubly mounted in the front and rear ends of the baling chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around one side of the baling chamber, and a plu-

5 rality of spacing blocks hingedly connected at their inner edges to said endless belts and adapted to be carried around thereby and successively brought into engagement with the end of the bales as they are formed in the baling chamber.

3. In a baling press, a baling chamber, guide pulleys revolubly mounted in the front and rear ends of said chamber, endless coiled 10 spring belts engaged with said pulleys and adapted to travel around one side of the baling chamber, a plurality of block attaching devices secured to said spring belts, spacing blocks pivotally connected with said 15 attaching devices, springs arranged on said devices and adapted to engage said blocks whereby the latter will be swung around into engagement with the hay when brought to the intake end of the baling chamber and will be swung upwardly and outwardly at the discharge end of said chamber, and means to hold said blocks in position while being carried by said belts across the top of the baling chamber.

25 4. In a baling press a baling chamber, guide pulleys revolubly mounted in the front and rear ends of said chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around one 30 side of the baling chamber, a plurality of block attaching devices secured to said spring belts, spacing blocks pivotally connected with said attaching devices, springs arranged on said devices and adapted to engage said blocks whereby the latter will be swung around into engagement with the hay when brought to the intake end of the baling chamber and will be swung upwardly and outwardly at the discharge end of said chamber, a block holding member arranged 40 above said baling chamber in position to receive the blocks when swung upwardly from the discharge end of the baling chamber and to hold the blocks in position while being carried across the top of the baling chamber, 45 a block retaining finger on the end of said rod above the intake end of the chamber to hold said blocks in an upright position

while being carried around the guide pulleys at this end of the chamber.

50

5. In a baling press a baling chamber, guide pulleys revolubly mounted on the ends of the top of the chamber, endless coiled spring belts engaged with said pulleys and adapted to travel around 55 adjacent to the inner and outer sides of the top of the baling chamber, spacing blocks, block attaching devices comprising pairs of clamping blocks adapted to be rigidly clamped to said spring belts, a pivot rod 60 engaged with said clamping blocks, brackets to pivotally connect said spacing blocks with said pivot rod, coiled springs arranged on said rod, said springs having one end secured to said clamping blocks and the op- 65 posite ends engaged with said spacing block whereby the pressure of said springs is exerted to swing the blocks downwardly or inwardly at the intake end of the baling chamber and outwardly and upwardly at 70 the discharge end of said chamber when brought to these positions by said spring belts, and a block holding rod arranged above the baling chamber to hold the blocks from being swung downwardly by said 75 springs while being carried over or across the top of the baling chamber.

6. In a baling press, an endless belt of elastic material mounted to travel around one side of the baling chamber of the press, 80 spacing blocks carried by said belt, springs coacting with said blocks whereby they are swung down to operative positions at one end of the baling chamber and swung out of the same at the opposite end thereof, and 85 a block holding member adapted to hold said blocks up against the pressure of said spring while being carried around the outside of the baling chamber by said belt.

In testimony whereof I have hereunto set 90 my hand in presence of two subscribing witnesses.

ALEXIS L. LAMAR.

Witnesses:

JOHN J. JONES,
C. M. DAVISON.