

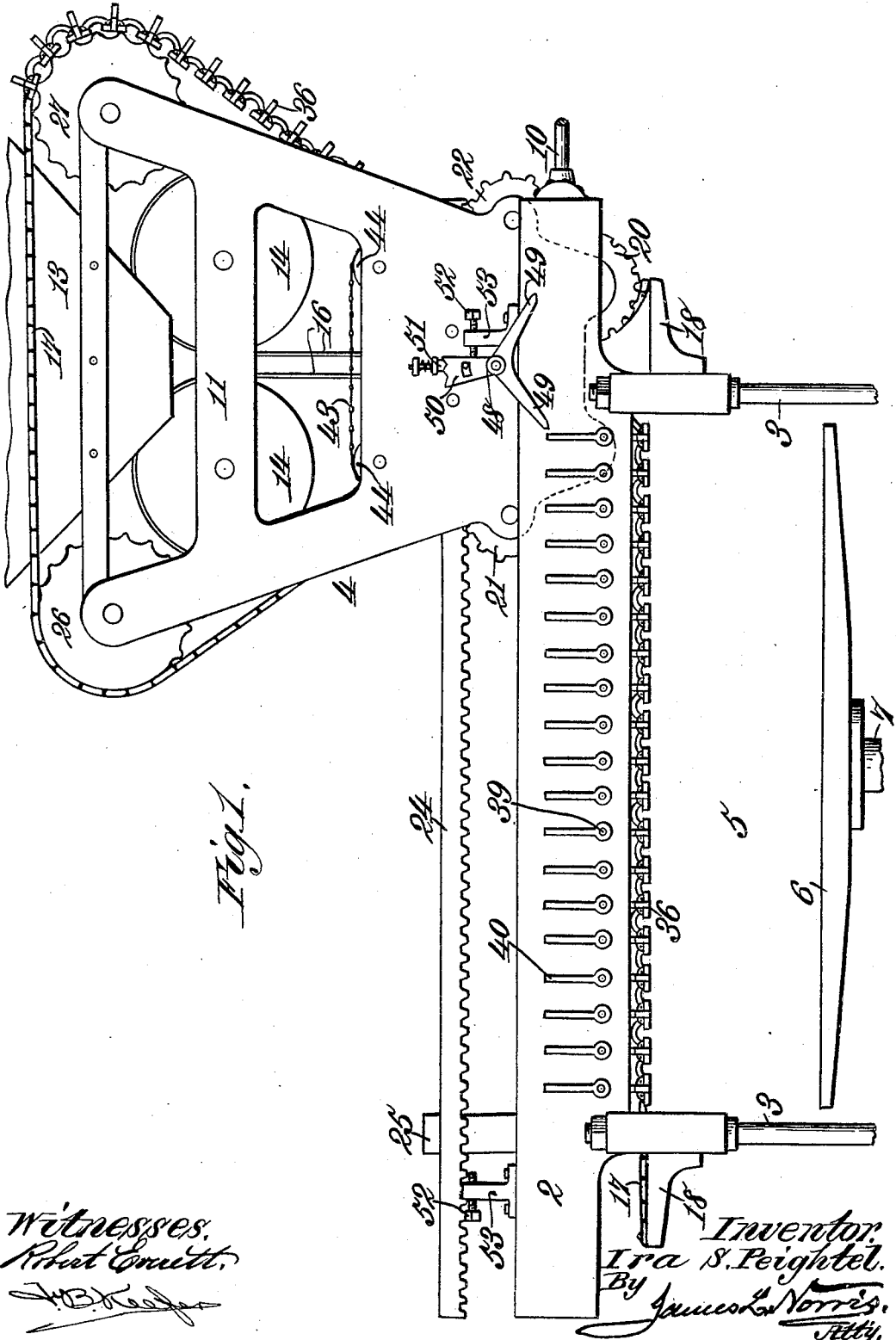
I. S. PEIGHTEL.
BALING PRESS.

APPLICATION FILED OCT. 5, 1906. RENEWED FEB. 4, 1909.

932,316.

Patented Aug. 24, 1909.

5 SHEETS—SHEET 1.



BALING PRESS.

932,316.

5 SHEETS—SHEET 2.



Inventor:
Ira S. Peightel,
By James L. Norris,
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I. S. PEIGHTEL.

BALING PRESS.

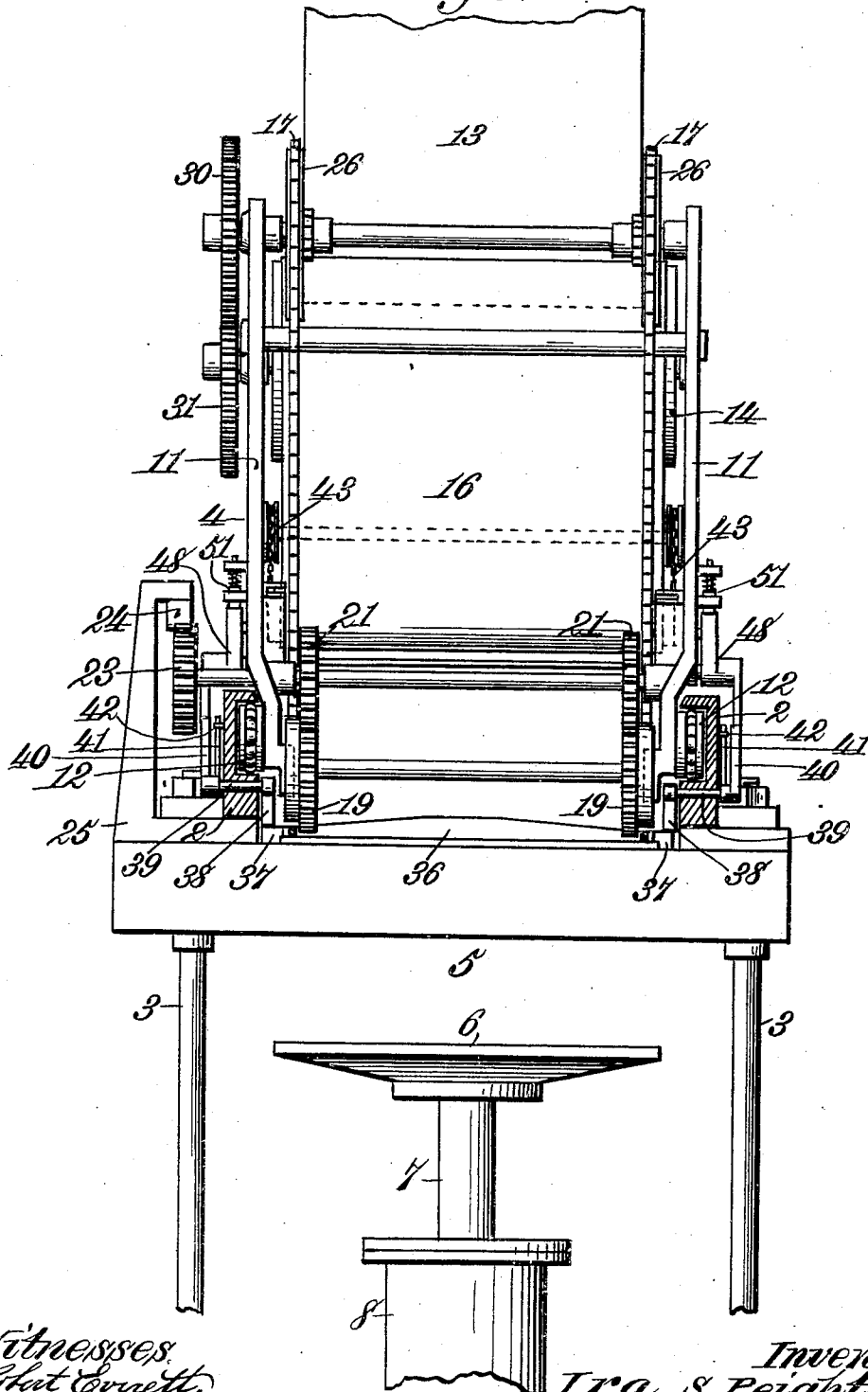
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5 SHEETS—SHEET 3.

Fig. 3.



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5 SHEETS--SHEET 4.



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5 SHEETS—SHEET 5.

Fig. 7.

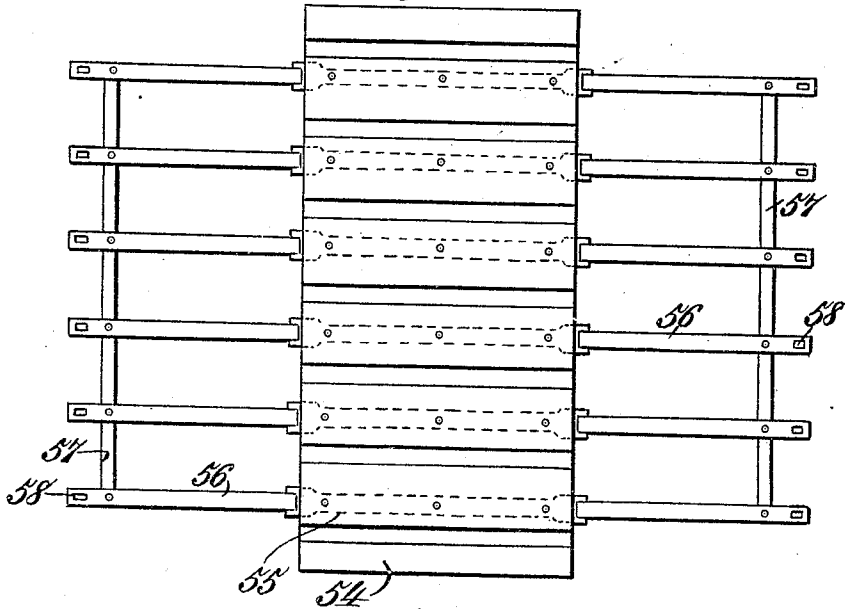


Fig. 8.

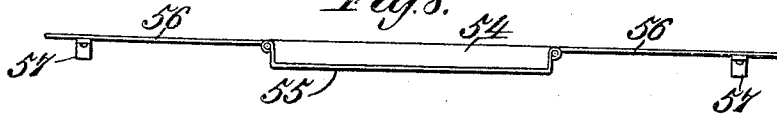


Fig. 9.

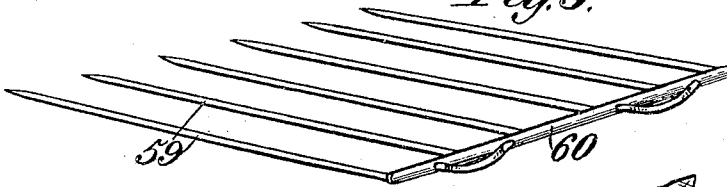
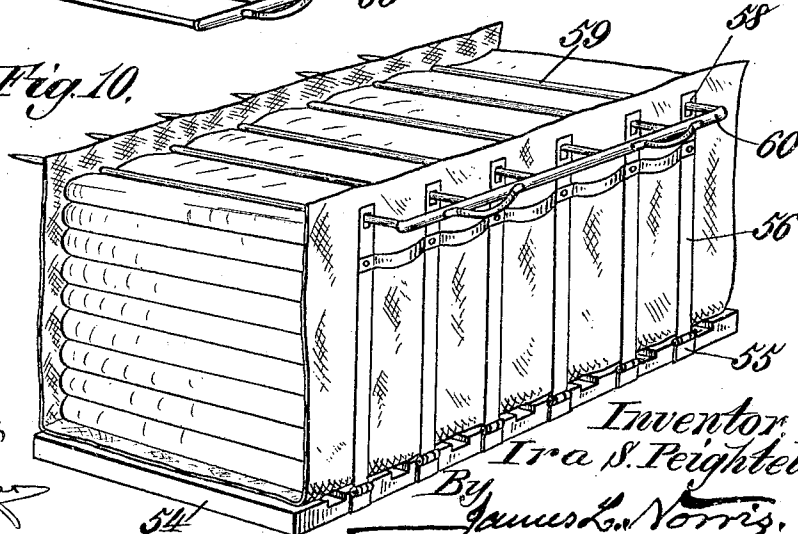


Fig. 10.



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UNITED STATES PATENT OFFICE.

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BALING-PRESS.

932,316.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Application filed October 5, 1906, Serial No. 337,659. Renewed February 4, 1909. Serial No. 476,099.

To all whom it may concern:

Be it known that I, IRA S. PEIGHTEL, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Baling-Presses, of which the following is a specification.

This invention relates to baling presses.

A baling press involving my invention may be advantageously utilized for forming various kinds of material into bales; cotton is one of these materials, and for the purpose of indicating the nature of the apparatus I shall in the following description refer to this particular material, although as will be understood from what has been stated other substances may be effectively made up into bales.

I am familiar with a cotton press which comprises a traveling carriage having means for forming material into a wad or bat, a space to receive the layers of wadded material and means for laying said wadded material in said space. The means which lay the wadded material in said space in the machine in question consist of several rollers or equivalent means mounted upon said carriage and these rollers receive the thrust or pressure of the cotton or the pressure of the pressure means which is used to densify or compact the mass in said space. This pressure is, therefore, absorbed or taken up by the carriage which is decidedly objectionable in that an unusual amount of power is required to operate said carriage. To avoid the obstacle mentioned I provide means independent of the carriage for receiving the thrust of the pressure means or the pressure of the expanding cotton or other material; in other words, the pressure developed by this expanding cotton or exerted by the densifying or compacting means is not transferred to the carriage in my machine. Another objection to the rollers or equivalent means which have heretofore been used is the fact that the same occupy a great amount of space. On the contrary the means which I have adopted for laying the cotton occupy comparatively a small compass. I have indicated generally some of the most important objects of my invention. These objects with others which the invention possesses will be fully pointed out in the description to which I have previously alluded.

In the drawings accompanying and forming a part of this specification, I illustrate in detail one form of embodiment of a baling press comprehending my invention, and which to enable those skilled in the art to practice said invention will be definitely set forth in said description.

It will be obvious that various modifications and changes may be adopted within the scope of the claims for my invention which succeed said description.

Referring to said drawings, Figure 1 is a side elevation of a baling press including my invention. Fig. 2 is a vertical sectional view of said press and Fig. 3 is a vertical sectional end elevation of the same as seen from the left in Figs. 1 and 2. Fig. 4 is a perspective view of a cross bar and certain devices coöperative therewith and hereinafter more particularly described. Fig. 5 is a top plan view of said cross bar. Fig. 6 is a diagrammatic view showing a trip device, several of the cross bars shown in said Figs. 4 and 5 and other coacting mechanism. Figs. 7 and 8 are detail views in top plan and elevation respectively of a crate. Fig. 9 is a perspective view of a series of needles and a connecting member. Fig. 10 is a like view of the finished bale and the crate carrying the same and the needles shown in said Fig. 9.

Like characters refer to like parts throughout the several figures.

The framework for sustaining the different parts of the press may be of any desirable character. The framework shown for this purpose includes in its make-up two similar or substantially similar plates, each designated by 2 and channeled for a purpose that will hereinafter appear. These plates or side members 2 are shown as connected and as sustained by several columns or uprights as 3. The connection between the parts just described may be of any desirable character. The side plates or members 2 constitute in effect rails or guides for a carriage such as that denoted in a general way by 4. As will hereinafter appear this carriage is preferably mounted for reciprocatory movement, during which, means coöperative therewith lay the cotton in wad or bat form in layers in the space 5 represented as situated below the said side members 2 and between the columns 3. The cotton laid in the space 5 may be compressed therein in any

desirable way; for example, by the head 6 of the rod 7 extending from the cylinder 8, which latter may be of hydraulic, steam or pneumatic type, as deemed most desirable.

5 When the pressure head is elevated the mass of cotton supported thereon will be compressed, the head being yieldable downward as the bale is built up. I do not deem it necessary to go into detail as to these fea-
10 tures for the same in themselves form no part of the present invention and are well known in the art to which my invention relates.

The traveling carriage 4 may be operated
15 in any desirable way, for example, from the cylinder 9, see for example Figs. 1 and 2, and which contains a piston, the rod 10 of which is connected with said carriage in any suitable way. The said carriage as will be under-
20 stood may be of any desirable character, the one shown includes in its make-up two opposite and approximately duplicate side frames as 11 tied together in any convenient manner and which are represented as equipped on
25 their outer sides with blocks as 12, see Fig. 3, for example, movable in the channels of the side plates 2, said blocks being equipped with suitable antifriction means as balls to travel in circumferential races in the respective
30 blocks and which balls during the motion of the carriage engage against the upper and lower faces of said channels. By the construction described I can move the carriage comparatively easily. The carriage
35 has in the present case a movement from one end of each of the side plates 2 to the opposite end thereof and back, and during this motion of the carriage means are in action for laying the cotton in web or bat form in
40 the space 5.

The carriage 4 has as a part thereof means for forming the cotton into a wad, bat or web, as it is variously called, and means for so forming the cotton are shown in the draw-
45 ings and will hereinafter be described. There is connected with the carriage 4 to travel therewith a supply hopper as 13. This hopper may be united with the frame members 11 in any desirable way. Between the sides
50 or frame members 11 are represented as situated two horizontally alined rollers as 14 of substantially large diameter, the opposite inclined walls of the hopper 13 being cut away to receive said rollers or drums. I
55 have represented two small rollers, as 15, below the other rollers 14, the shafts of the four rollers being supported in any desirable way by the frame members 11. Passed
60 around the two coöperating pairs of rollers 14 and 15 are aprons as 16, what might be considered the inner runs of these aprons, which are shown as being of endless form, being vertically disposed, in parallelism and separated or spaced apart. The distance be-
65 tween the inner runs of these two endless

aprons 16 defines the thickness of the web or wad. The cotton from the hopper 13 passes by gravity or, if desired, may be positively fed into the space between the inner runs of the two aprons or belts which inner runs
70 have a downward movement. The two belts therefore coöperate to form the cotton into a bat, web or wad and to also feed said cotton thus formed in a downward direction, the cotton in web or bat condition emerging
75 from what might be considered the throat of the carriage, after which point it is laid in the space 5 as will hereinafter more particularly appear.

The means shown for laying the cotton
80 includes in its construction two bands as 17 which are represented as consisting of sprocket chains and the opposite ends of which are attached to the framework of the machine, as clearly shown in Figs. 1 and 2.
85 The opposite ends of said chains may be as shown in these two figures connected with brackets as 18 associated with the columns 3.

The two chains 17 between their ends are represented as traveling upon two pairs of
90 sprocket wheels 19 and 20, see for example, Figs. 2 and 3, the said two pairs of sprocket wheels being separated, as clearly indicated in said Fig. 2 to provide a throat upon the carriage for the emergence therefrom of the
95 wad or web of cotton. The shafts of said sprocket wheels 19 and 20 are carried in any desirable way by and between the frame members 11. I have shown as in mesh with the two pairs of sprocket wheels 19 and 20 a
100 similar number of gear wheels as 21 and 22, the shafts of which are supported by the frame members 11 and carry gear wheels or pinions as 23 meshing with the teeth of a rack bar as 24 attached to a standard as 25
105 mounted upon the framework of the machine. When, therefore, the traveling carriage 4 is reciprocated the gears or pinions 23, by reason of their mesh with the rack 24, will be caused to rotate and thereby turn
110 the two sets of gear wheels 21 and 22 which being in mesh with the sprocket wheels 19 and 20 rotate the latter in order to move the sprocket chains 17 relative to the carriage 4. It will be understood that there are two gear
115 wheels 21 and two gear wheels 22, while the shaft of each pair of said gear wheels is equipped with a pinion as 23, there being in consequence two of said pinions 23 which are situated at some distance from each
120 other.

The carriage 4 in addition to carrying the two sets of sprocket wheels 19 and 20 also carry two other sets of sprocket wheels as 26 and 27 around which the chains 17 respec-
125 tively pass. The distance separating the upper sprocket wheels 26 and 27 is greater than that separating the lower sprocket wheels 19 and 20. I deem it desirable to specifically refer to the shafts 28 and 29 of 130

the said upper sprocket wheels 26 and 27, the latter being loose on their supporting shafts. The shaft 28 has fastened thereto a gear wheel as 30 meshing with a gear wheel as 31 fastened to the shaft of the drum 14 on the left in Fig. 2, while the shaft 29 has fastened thereto a gear wheel as 32, the teeth of which mesh with a gear wheel as 33 fastened to the shaft of the drum or roller 14 on the right in said Fig. 2. Said shafts 28 and 29 have fastened thereto in any desirable way ratchet wheels as 34, the teeth of which are engageable by spring-operated pawls as 35 pivoted upon the respective sprocket wheels 26 and 27. By reason of the construction just described the inner runs of the two endless belts or aprons 16 will be always operated downward whether the carriage 4 be traveling from the right in Fig. 2 toward the left or in the opposite direction, one pawl and ratchet device being idle while the other is in action.

The chains 17 are represented as connected by cross bars as 36 arranged in two series, the length of each series, as shown for example in Fig. 2, agreeing practically with the length of the baling space 5. Each cross bar 36 is represented as furnished with projections as 37 extending outward beyond the two chains 17. When I use the expression bars 36 I do so in a broad sense to include equivalent devices; in fact all designations employed by me herein are generic in their character. The series of cross bars 36 shown at the left in Fig. 2 and as horizontally disposed will be assumed to have just laid a layer of cotton in the space 5, the carriage 4 at this time having completed its movement to the right in said figure, it being thus shown therein. On the movement of the carriage 4 to the left the series of cross bars 36 on the left are caused first to take a slight curved path as they travel around the sprocket wheels 19, after which they pursue an upwardly and outwardly inclined path, this continuing until all of the said cross bars 36 at the left are from over the space 5. As the carriage 4 moves toward the left the cross bars 36 on the right take a path exactly opposite that followed by the other cross bars until all of said cross bars 36 on the right are over the top of the space 5. As the cross bars 36 on the right progressively assume a horizontal position they lay the cotton down in layer form in the space 5, the laying being completed when all of the cross bars 36 on the right are down, after which time the motion of the carriage is reversed. I reverse the described operation to cause the bars 36 on the left to lay down a layer in said space 5. The two series of cross bars, therefore, are alternately effective and with the two chains 17 present an advantageous cotton laying device.

When the respective series of cross bars

36 have completed the laying of the cotton in the space 5 the projections 37 at the opposite ends thereof will be under stops or dogs as 38 which in the present case are pendent from the framing of the machine. These stops or dogs 38 normally stand vertical, although they are free to swing or vibrate for a purpose that will hereinafter appear. In the present case they are situated upon the inner faces of the channeled members 2 and are fastened to pivots as 39 mounted for oscillation in and extending through said channeled members. The outer ends of these pivots 39 are shown as having non-rotatively fastened thereto arms as 40 to the hubs of which are represented as connected springs as 41, the upper ends of which are indicated as being situated between pins as 42 on the exterior faces of the two frame members 2, see for example Figs. 1, 3 and 6. The springs 41 normally maintain the respective arms 40 and stops or dogs 38 in an upright or vertical position and return such parts to such positions when any of them are positively operated by the laying mechanism or by any other means co-operative therewith.

In Fig. 2 I have shown a series of cross bars 36 as just having placed a layer of cotton in the space 5, the various bars composing said series being horizontally alined. When in this condition these particular bars will have their projections 37 under and contiguous to the vibratory normally vertically disposed stops or dogs 38. There is a tendency upon the part of the cotton while in the space 5 to expand and the pressure of this expansion is naturally put upon those bars 36 over said space. In addition to this pressure there is the pressure of the head 6 upon the mass of cotton. This pressure is applied to said bars and in turn to the stops or dogs 38 which as will be understood are carried by the framing of the machine and not by the carriage 4 so that very little of said upward pressure is applied to said carriage, by virtue of which the latter may be moved freely back and forth which would not be the case were the pressure absorbed, taken up or received by the carriage during its reciprocation. The stops or dogs as previously stated are vibratory or oscillatory so that they can be moved, as will hereinafter appear, from their normal position to permit the cotton laying bars 36 to move to and return from their operative relations.

I have shown as movable with the carriage 2 flexible guards, each designated by 42^a and which may be supported for traveling movement in guides in the frame members 11. The upper ends of the two guards or shields are represented as connected by chains as 43 traveling over rollers as 44, the shafts of which are sustained by said

frame members. There are two sets of rollers 44 and they are arranged in horizontal alinement with each other at opposite sides of the inner runs of the two endless aprons

16. The pairs of guides 45 which receive the guards or shields 42^a converge downward and beyond their point of convergence are made in arcuate form between the sprocket wheels 19 and 20 so as to alternately form the two guards into arcuate form opposite the respective sprocket wheels 19 and 20. The guards are operable in the present case by the chains 17 for which purpose said chains are shown as equipped with inward projections as 46 and 47, the projections 46 being adapted to operate the guard or shield 42^a on the left, while the projections 47 are adapted to operate the guard 42^a on the right in Fig. 2. In said figure the projections 46 are shown as having moved the guard 42^a on the left down, the opposite guard on said downward movement having been elevated by reason of the chains 43 connecting the two guards. The guard 42^a on the left partially surrounds the sprocket wheels 19 and partially covers the chains 17 at said sprocket wheels 19 and will remain in this relation until the carriage 4 has practically completed its stroke to the left in order to prevent the downwardly moving cotton from being fouled or caught in the links of said chains 17, in the teeth of the sprocket wheels 19, or between or by the bars 36. As the carriage 4 moves toward the left in Fig. 2 the cross bars 36 on the left will, commencing with the one on the extreme right, follow an upward curved direction and then an outward and upward angular direction, and were it not for the guard 42^a on the left, which at this time is down, the cotton might be caught by said ascending bars 36. Said guard 42^a will absolutely prevent such a possibility as this. When the carriage 4 has practically completed its stroke to the left the projections 47 on the movement of the chains 17 with respect to said carriage will engage against the upper edge of the guard or shield 42^a on the right so as to lower the same and thereby elevate the guard 42^a on the left, whereby on the movement of the carriage 4 to the right the cotton cannot catch in the sprocket wheels 20, chains 17 and moving cross bars 36 on the right. The two guards or shields serve therefore effectively to prevent checking of the feed of cotton into the space 5, by the sprocket wheels 19 and 20 and cooperating parts.

It will be assumed that the carriage 4 is traveling from the left toward the right as shown by the arrow in Fig. 6. During this motion of the carriage the cross bars 36 on the left are descending to a horizontal line over the baling space 5 while the cross bars 36 on the right are ascending from over said

space. During said motion of the carriage the projections 37 of the cross bars on the left strike against, swing and then pass by the vibratory stops or dogs 38, as shown by the arrows in said Fig. 6. As soon as a cross bar passes out of engagement with two cooperating stops 38 the same is instantly moved to their vertical positions by the springs 41.

I provide trip devices as those denoted in a general way by 48. Said trip devices as the carriage 4 moves toward the right, as indicated in said Fig. 6, engage successively against the arms 40 to swing said arms in such a direction as to operate the stops or dogs 38 to permit the ascent without obstruction by the stops of the cross bars 36 on the right as shown by the dotted arrow in said Fig. 6, the other arrows shown in the figure in question being in solid lines. When the carriage is moved toward the left the opposite action takes place as will be clearly evident. Each trip device 48 is pivotally mounted upon a frame member 11 and includes two tripping arms 49 and a third arm as 50, the latter having in its upper edge notches engageable alternately by a spring operated detent as 51.

As the carriage 4 moves toward the right in Fig. 6 the trip arms 49 on the right are adapted to trip the arms 40 to permit the elevation without hindrance from the stops or dogs 38 of the cross bars 36 on the right. When the carriage moves toward the left the trip arms 49 on the left become operative to actuate said arms 40 and I provide means for positively oscillating said trip devices, which means engages the arms 50 of said trip devices for such purpose. The means for oscillating the two trip devices may consist of two pairs of screws each designated by 52 and carried adjustably by brackets as 53 on the channeled members 2 near the ends of the reciprocatory travel of the carriage 4. The screws 52 on the left have moved the trip devices 48 to the position shown in Fig. 6 where they are held by the detents 51. When the carriage 4 practically completes its movement toward the right the screws 52 on the right will operate against the arms 50 to swing down the trip arms 49 in position to operate the arms 40 when the carriage 4 travels toward the left and the detents 51 hold positively the trip devices in their two shifted positions, although they can yield to permit oscillation thereof under the action of the screws 52. Before the cotton is laid in the space 5 I prefer to place upon the pressure head 6 the base of a crate now to be described and which may consist of a rectangular or substantially rectangular board or plate 54, see Fig. 7, shown as transversely channeled to receive the ties for the finished bale. Strips as 55 are fastened to the under side of the board or plate 54 and

have their ends opposite upset or bent to fit against the opposite side edges of said board or plate, as clearly shown in Fig. 8. To the upper ends of the upturned portions of the strips 55 are jointed strips as 56 which are connected respectively by rods or bars as 57 exteriorly thereof. The connected strips, therefore, present in effect swinging skeleton or open work sides for the crate or basket to which I have referred, the bottom thereof being composed of the base 54. The outer ends of the pivotally mounted strips 56 have slots or openings as 58 for the passage of needles as 59 which may be connected at one end by a cross bar as 60. When the base, board or plate 54 is put upon the head 6 the swinging sides of said base, which sides are made up in the present case of the connected strips 56, are down as shown in Fig. 8. Burlap sufficient to cover the bottom and sides of the bale to be formed is then laid upon the said base 54 and connected strips 55. In fact, I prefer to provide a quantity of burlap or other sacking material sufficient to extend beyond the ends of the finished bale and above the top thereof as clearly shown in Fig. 10.

The cotton is laid upon the burlap on the base 54 which in turn rests on the pressure head 6 and when the bale has been built up to the requisite extent the wad is separated from the bale, after which the strips 56 are swung up to vertical position. When this takes place the connected needles 59 can be passed through the slots 58. At this time the pressure head 6 can be lowered to remove the finished compressed bale from the head. The channels in the base or board 54 permit the passage of ties under the bale, the ends of which are brought up at opposite sides of said bale and tied together in any suitable way. When the bale is tied the needles 59 can be removed following which the strips 56 can be swung down to permit the bale to be lifted from the base 54; or the bale may be tied at any time for the needles 59 when in position shown in Fig. 10 prevent self-expansion of the compressed bale.

The machine hereinbefore described is comparatively simple in construction, effective and rapid in operation. There is very little pressure during the formation of the bale applied to any moving part. The different mechanisms are compactly arranged.

In operation the carriage moves back and forth and lays the wad formed in the carriage within the space 5.

What I claim is:

1. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means for laying said wadded material in said space, pressure means to act against the superimposed lay-

ers, and means independent of the carriage for receiving the thrust of the pressure means.

2. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material means for laying said wadded material in said space, pressure means to act against the superimposed layers, and means supported upon the framework of the press and independent of the carriage for receiving the thrust of the pressure means.

3. A baling press having a traveling carriage provided with two traveling aprons to form material into a wad, a space to receive the layers of wadded material, means for laying the wadded material in said space, pressure means to act against the superimposed layers, and means independent of the carriage for receiving the thrust of the pressure means.

4. A baling press having a traveling carriage provided with two traveling aprons to form material into a wad, a space to receive the layers of wadded material, means for laying the wadded material in said space, pressure means to act against the superimposed layers, means independent of the carriage for receiving the thrust of the pressure means, and mechanism operable by the movement of said carriage for actuating said aprons.

5. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means comprising a plurality of bars, for laying said wadded material in said space, pressure means to act against the superimposed layers, and means independent of the carriage for receiving the thrust applied by the pressure means to said bars.

6. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means comprising a plurality of bars, for laying said wadded material in said space, pressure means to act against the superimposed layers, and a plurality of dogs on the framework for receiving the thrust applied to said bars by said pressure means.

7. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means comprising a plurality of bars, for laying said wadded material in said space, pressure means to act against the superimposed layers, and a plurality of dogs movably supported by the framework for receiving the thrust applied to said bars by said pressure means.

8. A baling press having a traveling car-

riage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means comprising a plurality of bars, for laying said wadded material in said space, pressure means to act against the superimposed layers, a plurality of dogs movably supported by the framework for receiving the thrust applied to said bars by said pressure means, and means for normally positively holding said dogs in their operative positions.

9. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means for laying said wadded material in said space, pressure means to act against the superimposed layers, and spring controlled dogs mounted on the framework for receiving the thrust of the pressure means.

10. A baling press having a traveling carriage provided with means for forming the material into a wad, a space to receive the layers of wadded material, means comprising a plurality of bars, for laying the wadded material in said space, pressure means to act against the superimposed layers, a plurality of movably mounted dogs for receiving the thrust applied to said bars by said pressure means, and springs for normally holding said dogs in their operative positions.

11. A baling press having means for superimposing layers of wadded material to form a bale, and comprising a plurality of bars, pressure means to act against the layers, and movable dogs on the framework to receive the pressure applied to the bars by said pressure means.

12. A baling press having means for superimposing layers of wadded material to form a bale and comprising a plurality of bars, pressure means to act against the layers, movable dogs on the framework to receive the pressure applied to the bars by said pressure means, and springs acting against the respective dogs to normally hold the same in their operative positions.

13. A baling press having means for superimposing layers of wadded material and comprising chains, and cross bars connecting said chains, pressure means to act against the superimposed layers, and movable dogs to receive the pressure applied to said bars by said pressure means.

14. A baling press having means for superimposing layers of wadded material to form a bale, pressure means to act against the superimposed layers, said first mentioned means comprising two sets of bars, dogs movably mounted on the framework and operable alternately by the respective sets of bars, and trip mechanism for also operating said dogs.

15. A baling press having a traveling car-

riage provided with means for forming the material into a wad, a flexible device for superimposing layers of the wadded material to form a bale, pressure means to act against the superimposed layers, and means independent of the carriage for receiving the thrust of the pressure means applied to said flexible device.

16. A baling press having a traveling carriage provided with means for forming the material into wad form, a flexible device for superimposing layers of the wadded material to form a bale and connected with the framework at opposite sides of said carriage, the latter having guide wheels over which the said flexible device passes, pressure means to act against the superimposed layers, and means independent of the carriage for receiving the pressure applied to said flexible device by said pressure means.

17. A baling press having a traveling carriage provided with means for forming material into a wad, and also provided with guide wheels separated to present a throat through which the wadded material passes, a flexible device for superimposing layers of the wadded material to form a bale and passing around said guide wheels, and guard means on the carriage to prevent the material catching in said guide wheels.

18. A baling press having a traveling carriage provided with means for forming material into a wad and also provided with guide wheels separated to form a throat for the passage of said wad, a flexible device passing around said guide wheels for superimposing layers of the wadded material to make a bale, two guards, and means for alternately operating the guards to move them substantially opposite the respective guide wheels.

19. A baling press having a traveling carriage provided with means for forming material into a wad and also provided with guide wheels separated to present a throat for the passage of said wad, a flexible device passing around said guide wheels for superimposing layers of the wadded material to make a bale, two guards, and means for alternately operating the guards to move them substantially opposite the respective guide wheels, said means being operable by said flexible device.

20. A baling press having a traveling carriage provided with means for forming the material into a wad, means for superimposing layers of the wadded material to make a bale and comprising chains, and two sets of cross bars connected with the chains, upper and lower sets of guide wheels over which the chains pass, the upper sets of guide wheels being separated a greater distance apart than the lower sets of guide wheels, the space between the lower sets of guide wheels presenting a throat for the pas-

sage of the wad, guards supported by the carriage and movable into said throat, and means for alternately operating said guards to bring them opposite the lower guide wheels.

21. A baling press having a traveling carriage provided with means for forming the material, into a wad, means for superimposing layers of the wadded material to make a bale and comprising chains, and two sets of cross bars connected with the chains, upper and lower sets of guide wheels over which the chains pass, the upper sets of guide wheels being separated a greater distance apart than the lower sets of guide wheels, the space between the lower sets of guide wheels presenting a throat for the passage of the wad, guards supported by the carriage and movable into said throat, means for alternately operating said guards to bring them opposite the lower guide wheels, and mechanism operable by the moving carriage for operating against the lower set of guide wheels to turn the same.

22. A baling press having a traveling carriage provided with means for forming the material into a wad, means for superimposing layers of the wadded material to make a

bale and comprising a plurality of bars, pressure means acting against the superimposed layers, dogs pivotally mounted upon the framework for receiving the thrust applied to said bars by said pressure means and movable by the bars, and a trip device on the carriage for also operating said dogs.

23. A baling press having a traveling carriage provided with means for forming the material into a wad, means for superimposing layers of the wadded material to make a bale and comprising a plurality of bars, pressure means acting against the superimposed layers, pivotally mounted dogs on the framework for receiving the pressure applied to said bars by the pressure means, arms connected with said dogs, springs for normally holding the dogs in their operative positions, and a trip device on the carriage for actuating said arms.

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

IRA S. PEIGHTEL.

Witnesses:

BEN TEBBE,
SAM B. HILL.