No. 645,993. Patented Mar. 27, 1900.

M. J. BARTLETT.

MACHINE FOR ATTACHING LINING HOOPS.

(Application filed Aug 21, 1899.)

(No Model.) 2 Sheets—Sheet 1

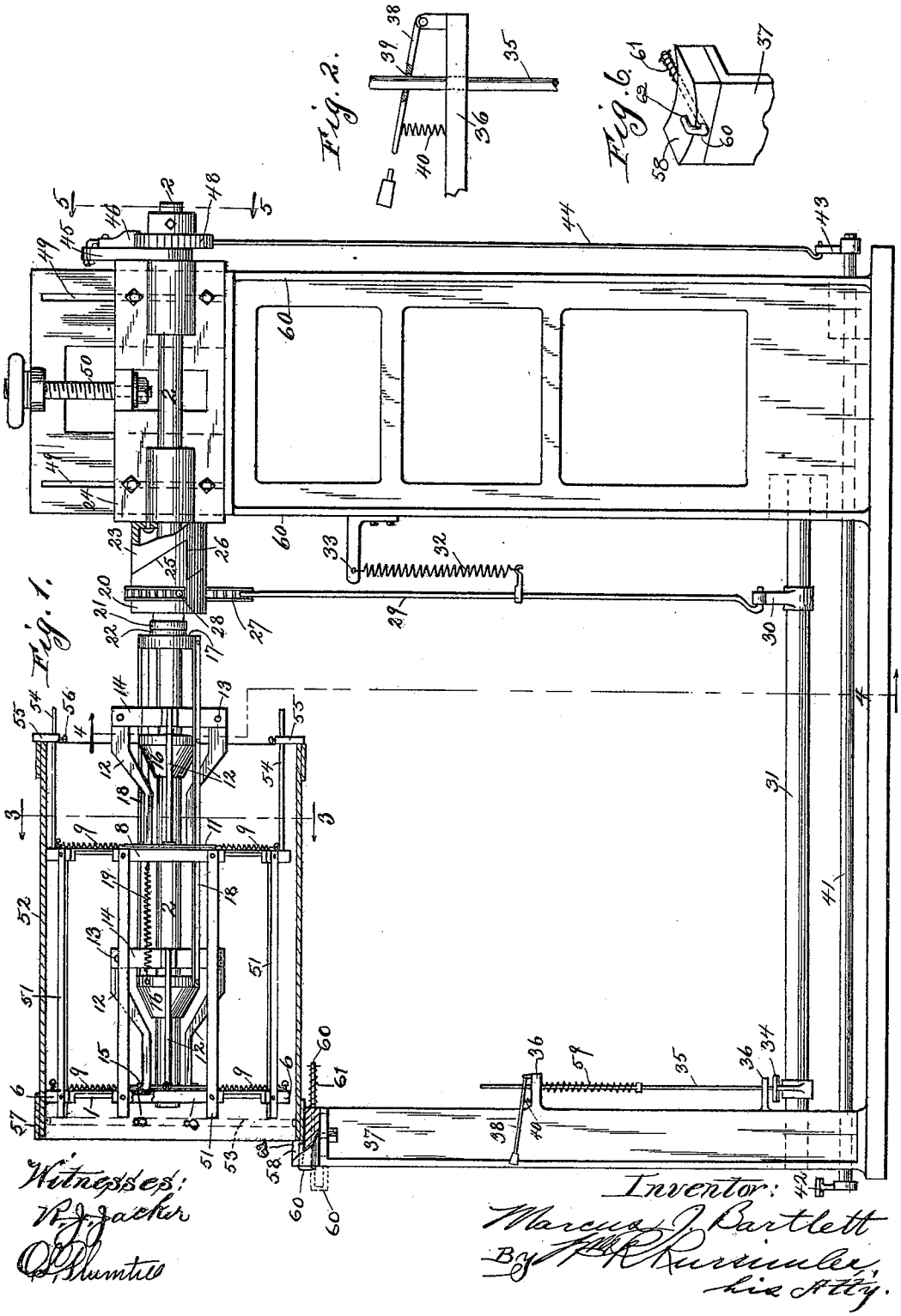


Fig. 1.

Fig. 2.

Fig. 6.

Witnesses:
R. J. Jacker
O. Plumtree

Inventor:
Marcus J. Bartlett
By F. K. Burwell,
his Atty.

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

No. 645,993. Patented Mar. 27, 1900.

M. J. BARTLETT.

MACHINE FOR ATTACHING LINING HOOPS.

(Application filed Aug. 21, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

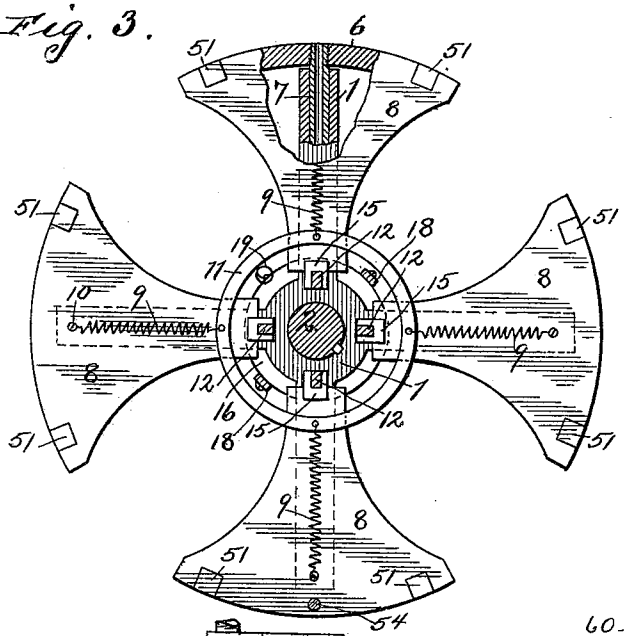


Fig. 4.

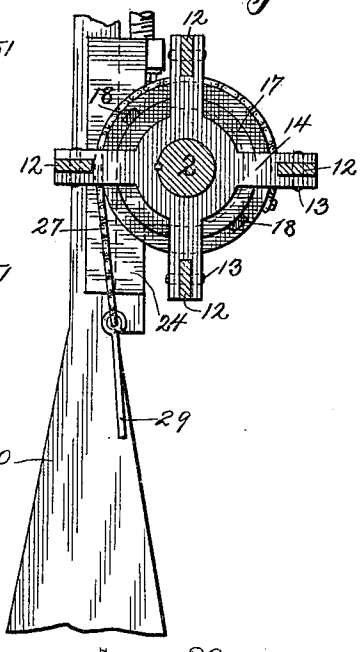
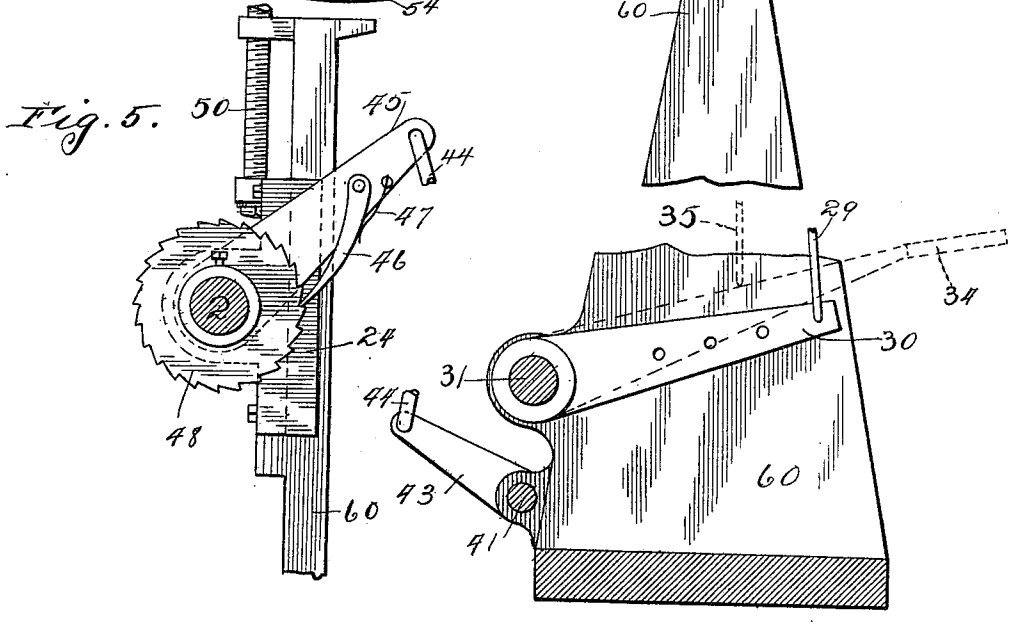


Fig. 5.



Witnesses:
W. J. Jaeker.
O. L. Plumtree

Inventor:
Marcus J. Bartlett
By Thos. R. Runnemler,
his Atty.

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

UNITED STATES PATENT OFFICE.

MARCUS J. BARTLETT, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE INTERNATIONAL PACKAGE MACHINE COMPANY, OF SAME PLACE.

MACHINE FOR ATTACHING LINING-HOOPS.

SPECIFICATION forming part of Letters Patent No. 645,993, dated March 27, 1900.

Application filed August 21, 1899. Serial No. 727,912. (No model.)

To all whom it may concern:

Be it known that I, MARCUS J. BARTLETT, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Attaching Lining-Hoops, of which the following is a specification.

My invention relates to machines for attaching lining-hoops to cylindrical veneer packages. Its main objects are to suitably support the package during the process of attaching the hoops, to provide for retaining the hoops in the desired position in the package during such process, and to provide for rotating the package while the hoops are being nailed or fastened.

Other objects of different features of construction shown will be understood from the following description, with reference to the accompanying drawings, in which—

Figure 1 is a side elevation, partly sectional, of a machine constructed according to my invention. Fig. 2 is an enlarged detail view, partly broken away, of the catch for holding the package-supporting drum at any desired degree of expansion. Fig. 3 is an enlarged vertical section of said drum on the line 3 3 of Fig. 1. Fig. 4 is an enlarged vertical section, partly broken away, on the line 4 4 of Fig. 1. Fig. 5 is an enlarged vertical section, partly broken away, on the line 5 5 of Fig. 1. Fig. 6 is a perspective view of the top of the anvil and stop 60.

The package-supporting drum consists of a pair of spiders 1, rigidly mounted on the shaft 2, and the segments 6, supported by arms 7, which are vertically slidable in their respective arms of the spider. End pieces 8 are rigid on the segments. Springs 9 are secured to the end pieces at 10 and to the rings 11, which hang free from the other parts, being supported by said springs. Said springs urge the segments 6 inwardly, and thus normally collapse the drum. The levers 12 are pivoted at 13 to the arms 14, which are rigid on the shaft 2. The ends of said levers 12 rest under the end pieces 8 in the grooved blocks 15, which are rigid on said end pieces. The cones 16 and collar 17 are longitudinally slidable on the shaft 2 and are secured together by the arms 18. The spring 19 is secured to one of said cones and to one of the spiders 1 and normally urges said cones toward the right of Fig. 1. The collar 20 is loose on the shaft 2 and has the projection 21 abutting the projection 22 on the collar 17. The member 23 is rigidly secured to the bearing-plate 24, in which the shaft 2 is journaled. The collar 20 and the member 23 are cut oppositely to form the cam-faces at 25 and the shoulders or stops at 26. A chain or belt 27 is secured to the collar 20 at 28 and connects, through the rod 29, with the crank-arm 30 on the rock-shaft 31. The spring 32 is secured to the frame at 33 and normally raises the arm 29. A foot-lever 34 is rigid on the rock-shaft and projects forward of same. Said lever is shown in dotted lines in Fig. 4. The rod 35 rests on the foot-lever 34 and extends upwardly through the guides 36 on the anvil 37. The lever 38 is pivoted to the upper guide 36 and has a perforation 39, through which the rod 35 extends. The spring 40 normally urges the lever 38 upwardly, causing the rod 35 to bind in the perforation 39. The spring 59 urges the rod 35 normally downward against the lever 34.

The rock-shaft 41 is provided with the forwardly-projecting foot-lever 42 and the crank-arm 43 rigid thereon. The rod 44 is secured to the crank-arm 43 and to the crank-arm 45. The latter is loosely supported on the shaft 2 and has a pawl 46, normally urged by the spring 47 into engagement with the ratchet-wheel 48, which is rigid on the shaft 2. The shaft 2 and drum carried thereby may be turned through the action of said ratchet-wheel and its connection with the foot-lever 42.

The bearing-plate 24 is bolted through the slots 49 in the frame 60 and is vertically adjustable therein by means of the screw 50.

The plates 8 of the drum are connected by arms 51, which project forward slightly, forming stops against which the hoops are placed in inserting same in the veneer package 52. A hoop 53 is shown by dotted lines in Fig. 1. Rods 54 are rigid on the plate 8. (Shown at the right of the drum in Fig. 1.) Stops 55 are slidable longitudinally of said rods and fixed

in position by means of the set-screws 56. The stops 55 fix the position of one end of the veneer package. The package shown is provided with outer hoops 57.

The stop 60 is seated in a horizontal perforation passing through the anvil. Said stop consists of a rod bent over at its outer or front end, so that said end projects inwardly over the surface 58 of the anvil. The spring 61 normally urges the stop inwardly, but permits the stop to be pulled outwardly and turned down, as shown by the dotted lines in Fig. 1. The end 62 of the stop serves to fix the position of the package, the latter being placed so that its front end abuts the stop. This stop can be turned down out of the way when a lot of packages of uniform length are handled, the stop 55 having been previously adjusted to fix the position of the package.

The anvil 37 has its upper surface 58 of concave form to fit the outside of the veneer package.

The operation of the device is as follows: The bearing-plate 24 will be adjusted by the screw 50 so that when the drum is expanded and a package is mounted thereon the latter will rest upon the top 58 of the anvil 37. In Fig. 1 the device is shown in proper position for receiving the package, the drum being collapsed. The package is then put on the drum in the position shown. The operator will now step upon the lever 34, thus through the rock-shaft 31 turning the collar 20 and through its cam-faces 25 forcing same toward the left of Fig. 1. Said collar coming against the part 22 of the collar 17 will force the cones toward the left against the levers 12. This will raise the ends of the levers which are under the plates 8, and thus expand the drum, urging the segments 6 against the walls of the package. During the operation of expanding the drum the operator will depress the lever 38 so as to permit the rod 35 to drop with the lever 34. When the rock-shaft 31 has been turned as desired to effect the proper expansion of the drum, the operator will release the lever 38. This will bind the rod 35, and thus through the pressure of the rod 35 upon the lever 34 will lock the drum at the desired degree of expansion. The spring 59 is secured to said rod and to the projection 36 and urges the rod normally downward. The strip from which the lining-hoop is to be formed is now inserted in the end of the package against the ends of the members 51, as shown by the dotted lines 53. The operator now nails the hoop to the package at the lowest part, being the part resting upon the anvil 37. The operator then depresses the foot-lever 42, so as to turn the package slightly through the action of the ratchet-wheel 48. The operator will then nail the hoop at the lowest part, continuing to turn the package until the hoop is nailed throughout its length. When packages of smaller diameter are to be handled, the bearing-plate 24 will be lowered slightly by means of the screw 50. For handling short packages the stops 55 will be set toward the left of Fig. 1 on the rods 54. For long packages said stops will be set toward the right. When a lot of packages of uniform length are handled, the stops 55 will be used in preference to the stop 60, but when the packages vary in length the stop 60 is preferably used. This will provide for having the lining-hoops of uniform distance from the adjacent end of such packages. After the hoop is nailed in position the operator merely depresses the lever 38, and thus through the release of the lever 34 and the rock-shaft 31 permits the collar 20 to return to the position shown in Fig. 1, thus permitting the cones 16 to be drawn back to their normal position. The springs 9 will now operate to collapse the drum, from which the package may then be readily removed.

It will be understood that the details of the device shown may be altered in numerous ways without departing from the spirit of my invention. I therefore do not confine myself to such details, except as hereinafter limited in the claims.

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

1. In a machine for attaching lining-hoops to veneer packages, the combination of a supporting-frame, a shaft supported at one end on said frame, and having its other end free therefrom, a collapsible drum mounted on said shaft, means for collapsing and expanding said drum, a stop for fixing the position of the packages longitudinal of the drum, an anvil for abutting the under surface of the outer end of said package, and means for rotating said drum, substantially as described.

2. In a machine for attaching lining-hoops to veneer packages, the combination of a supporting-frame, a shaft supported at one end on said frame, and having its other end free therefrom, a collapsible drum mounted on said shaft, means for collapsing and expanding said drum, an adjustable stop on said drum for engaging the inner end of a veneer package, an anvil for abutting the under surface of the outer end of said package, and means for rotating said drum, substantially as described.

3. In a machine for attaching lining-hoops to veneer packages, the combination of a supporting-frame, a shaft supported at one end on said frame, and having its other end free therefrom, a collapsible drum mounted on said shaft, means for collapsing and expanding said drum, an anvil for abutting the under surface of the outer end of said package, a stop on said anvil for engaging the outer end of the drum, and means for rotating said drum, substantially as described.

4. In a machine for attaching lining-hoops to veneer packages, the combination of a supporting-frame, a shaft supported at one end on said frame, and having its other end free therefrom, a collapsible drum mounted on said shaft, means for collapsing said drum,

an adjustable stop on said drum for engaging the inner end of a veneer package, an anvil for abutting the under surface of the outer end of said package, a stop on said anvil for engaging the outer end of the drum, and means for rotating said drum, substantially as described.

5. In a machine for attaching lining-hoops to veneer packages, the combination of a supporting-frame, a shaft supported at one end on said frame, and having its other end free therefrom, a collapsible drum mounted on said shaft, means for collapsing and expanding said drum, an adjustable stop on said drum for engaging the inner end of a veneer package, an anvil for abutting the under surface of the outer end of said package, and means for rotating said drum, said shaft and anvil being relatively vertically adjustable, substantially as described.

6. The combination of a supporting-frame, a shaft journaled on said frame, a collapsible drum mounted on said shaft and rotatable therewith, a cone or wedging member mounted on said shaft and slidable longitudinally thereof for expanding said drum, a loose collar on said shaft abutting the wedging member and having a cam-face on its opposite side, an oppositely-formed face rigid on the frame and abutting said cam-face, a lever for turning said loose collar, a grip for setting said collar at any part of its movement, a ratchet-wheel rigid on said shaft, and a lever and pawl acting on said ratchet-wheel for rotating same, substantially as described.

7. The combination of a supporting-frame, a shaft journaled on said frame, a pair of spiders rigid on said shaft, a series of drum-segments having rigid thereon the inwardly-projecting arms slidingly secured to said spiders, the arms 14 rigid on said shaft, the levers 12 pivoted to said arms with their free ends under said inwardly-projecting arms, and the cones for actuating said levers, substantially as described.

8. In a machine for attaching lining-hoops to veneer packages, the combination of a supporting-frame, a shaft supported at one end on said frame, and having its other end free therefrom, a collapsible drum mounted on said shaft, means for collapsing and expanding said drum, an anvil having a concave upper surface for abutting the under surface of the outer end of said package, a stop movably secured to said anvil, arranged to normally project over said concave surface, and adapted to be turned to a position free from same, and means for rotating said drum, substantially as described.

Signed by me at Chicago, Illinois, this 18th day of August, 1899.

MARCUS J. BARTLETT.

Witnesses:
WM. R. RUMMLER,
A. H. DURAND.