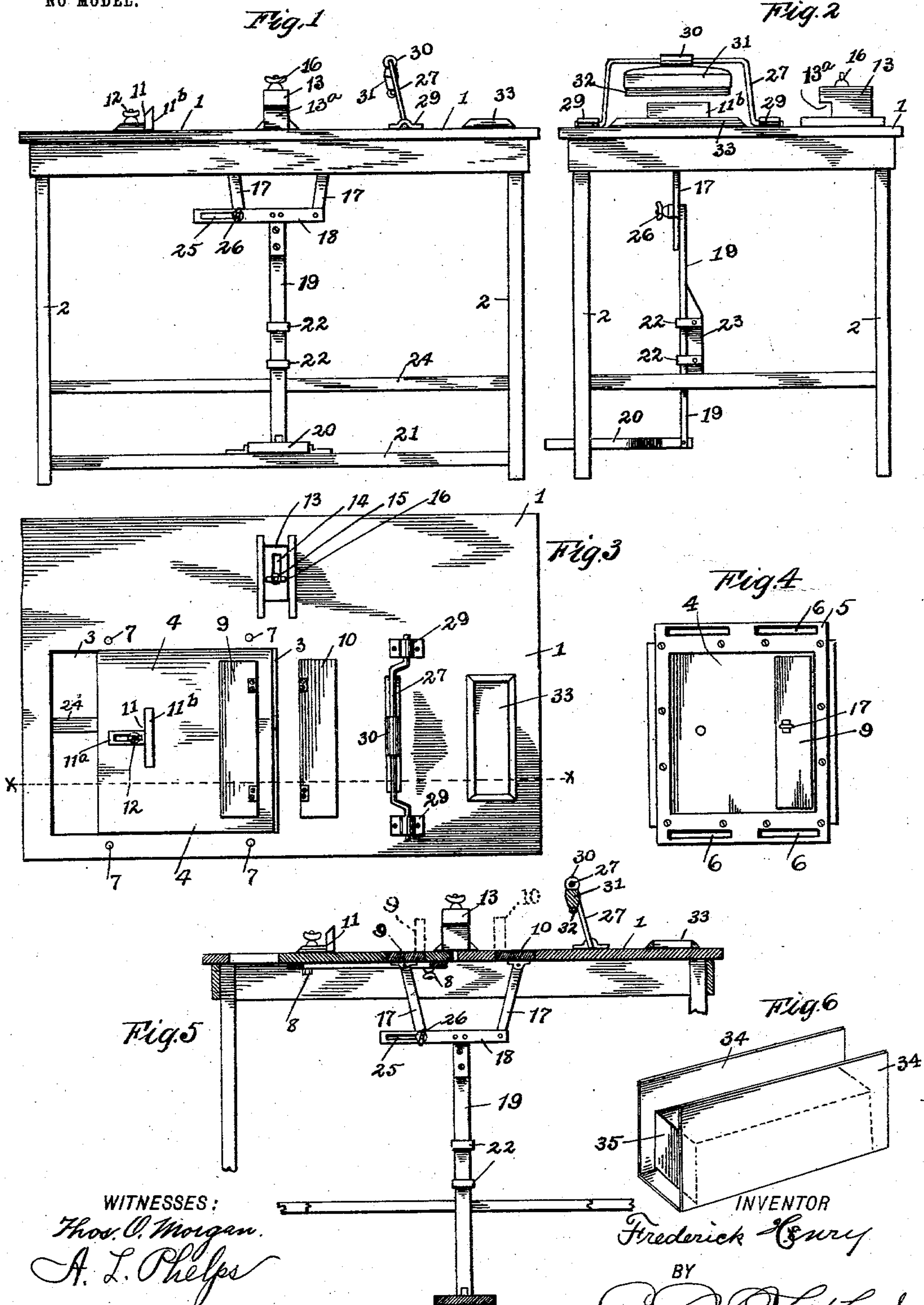


No. 740,852.

PATENTED OCT. 6, 1903.

F. HENRY.  
BOX WRAPPING MACHINE.  
APPLICATION FILED NOV. 3, 1902.

NO MODEL.



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# UNITED STATES PATENT OFFICE.

FREDERICK HENRY, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO  
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## BOX-WRAPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 740,852, dated October 6, 1903.

Application filed November 3, 1902. Serial No. 129,818. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK HENRY, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Box-Wrapping Machines, of which the following is a specification.

My invention relates to wrapping-machines, and has particular relation to that class of machines which are adapted for use in assisting in securing the wrapper or combined wrapper and label about a box or carton.

The objects of my invention are to provide an improved machine of this class by means of which the process of inclosing a box or carton in a paper wrapper or label will be greatly facilitated, to combine therewith means for providing the paper wrapper with paste, and to produce other improvements the details of construction of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved machine and its supporting-table. Fig. 2 is an end view of the same. Fig. 3 is a plan view. Fig. 4 is an under side view of an adjustable table-plate which I employ in the manner hereinafter described. Fig. 5 is a longitudinal vertical section on line  $x x$  of Fig. 3; and Fig. 6 is a detail view in perspective of a paper box or carton, showing the same partially wrapped by my improved machine.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a suitable supporting-frame which is in the nature of a table, this table-frame comprising a horizontal top 1 and supporting-legs 2. In constructing the table-top I provide the same on one side of the center of its length with an oblong opening 3, into which is adapted to fit and slide in the direction of the length of the table a plate 4. This plate, as indicated in Fig. 4 of the drawings, has secured to its under side a frame 5 of less width than the width of the plate 4, and through the ends of said frame are formed slotted openings 6, through which are adapted to pass bolts 7, which depend from the table-top on opposite

sides of the opening 3, the lower ends of said bolts being provided with nuts 8, as shown in Fig. 5 of the drawings. The plate 4, which has its upper side flush with the upper side of the table-top, is provided in its inner end portion with a transverse slotted opening which is normally filled by a door-like clamp or binding-plate 9, which is hinged on one of its longer sides to the plate 4. A similar slotted opening is formed in the table-top 1, and a door-like clamp 10, corresponding with the clamp 9, is hinged in said table-top opening, said clamps being arranged parallel, as shown. On the plate 4, near the outer end thereof, I provide an adjustable stop-bracket 11, which comprises a horizontal longitudinally-slotted portion 11<sup>a</sup> and an upwardly-projecting inner end portion 11<sup>b</sup>. Through the slotted opening of the bracket-arm 11<sup>a</sup> and through the plate 4 passes a set-screw 12.

Upon the rear portion of the table-top, opposite the space between the clamping-plates 9 and 10, I provide a transversely-adjustable block 13, the latter having, as indicated more clearly in Fig. 2 of the drawings, its forward face or end recessed at 13<sup>a</sup> in its lower portion. This block 13 may be adjustable through the medium of a slotted opening 14 formed therein, through which and through the table-top passes a bolt 15, provided on its upper end with a thumb or clamping nut 16.

Pivotally connected with the under side of each of the door-like clamping-plates 9 and 10 is the upper end of a downwardly-extending bar 17, these bars being pivotally connected at their lower end with a horizontal bar 18, which is carried on the upper end of a downwardly-extending lever or bar 19, said lever 19 being pivotally connected at its lower end with the rear end of a foot-treadle 20, which in turn is pivoted or fulcrumed on a forward cross-bar 21 of the table-frame. The bar or lever 19 passes loosely through guides or keepers 22, which project from an upright guide-block 23, mounted on a lower bar 24 of the table-frame. It being desirable to provide an adjustable connection of that bar 17 which depends from the clamp 9 with the bar 18, I provide said bar 18, as indicated in the drawings, with a longitudinally-arranged slotted opening 25 near one end thereof and ad-



justably connect the lower end of said bar 17 with said bar 18 through the medium of a clamping bolt and nut, such as is indicated at 26.

5 It will here be noted that the bars 17 work through openings in the top of the table, whereby said bars are not in the way of the operator, as would be the case if they were at the sides of the table.

10 In order to facilitate the application of paste to the box or carton wrapper, I provide at one side of the hinged clamp 12 a swinging yoke 27, the ends of which are journaled in suitable bearing-plates 29, secured to the  
15 table-top. The outer horizontal arm of this yoke has slidably and rotatably mounted thereon a tubular projection 30 of a paste-spreader 31, the latter comprising a solid body portion, from the lower edge of which  
20 projects a pasting-strip 32, of felt, rubber, or other desirable material. At a point adjacent to this paste-applying device I preferably provide the table-top with a suitable form of paste-pad 33.

25 In utilizing my invention for the purpose of partially wrapping a carton or box of that class which are ordinarily employed for containing crackers or other goods the paper wrapper or combined wrapper and label 34  
30 is placed upon the table-top, so that it covers the upper sides of the clamping-plates 9 and 10 and has its rear end within the recessed portion 13<sup>a</sup> of the block 13 and in contact with the latter and one of its sides against the portion 11<sup>b</sup> of the stop 11. The box or  
35 carton to be wrapped is then laid upon the table-top between the clamping-plates 9 and 10 with its rear end against the forwardly-projecting portion of the block 13. Paste is applied to a desirable portion of one end or side  
40 of the wrapper by first swinging the pasting device 31 over until its portion 32 may by contact with the pad 33 be made to take up a desirable quantity of paste, after which said pasting device is swung to such position over one  
45 side of the paper wrapper as to admit of the paste being applied thereto. It is obvious that this application of paste to the wrapper may be imparted by a backward-and-forward brush  
50 movement of the pasting device or a sliding movement of said device on the upper arm of its supporting-yoke. By pressing upon the foot lever or treadle 20 it will be understood that the bar 19 will move upward, imparting  
55 such upward movement to the bars 17 as to cause the clamping-plates 9 and 10 to press the paper wrapper upward and forward against opposite sides of the box, the box which I have shown at 35 in Fig. 6 being thus  
60 partially wrapped, as shown in said figure. This being accomplished, the upwardly-projecting portions of the wrapper may be pressed inward and downward by hand, the paste-containing portion thereof being pressed into  
65 proper pasting contact with the opposing portion, after which the box may be lifted or moved from the position described and the

ends of the wrapper suitably folded against the ends of the box.

In order to provide for the partial wrapping 70 of boxes of different widths, I employ the clamping-plate 9 within the sliding plate 4, thus providing by the sliding of said plate 4 within the opening 3 means for separating the clamping-plates 9 and 10 to the desired 75 extent to facilitate the wrapping of boxes of different widths.

From the construction and operation herein shown and described it will be seen that the partial wrapping or covering of a box or 80 carton may be readily accomplished and that by the use of my improved machine much labor and time may be saved in the wrapping operation.

Having now fully described my invention, 85 what I claim, and desire to secure by Letters Patent, is—

1. In a box-wrapping machine, the combination with a frame having a top provided with openings of plates hinged within said open- 90 ings, and means including an operating-bar having connections working through the openings and engaged with the under sides of said plates to swing the same simultaneously upward and inward in opposite direc- 95 tions.

2. In a box-wrapping machine, the combination with a frame comprising a horizontal top portion and supports therefor, of a plate slidably mounted in said frame-top, openings 100 formed respectively in said plate and frame-top, clamping-plates hinged in said openings, an operating lever or bar and connections between the latter and said clamping-plates whereby an upward movement of said lever 105 or bar may result in the upward-swinging movement of said clamping-plates, substantially as specified.

3. In a box-wrapping machine, the combination with a framework comprising a horizontal 110 top portion and supports therefor, said frame-top having formed therein openings and clamping-plates hinged in said openings, of an adjustable abutment on said frame-top in rear of the space between said clamps, an 115 adjustable gage-block on one side of one of said clamps, an operating bar or lever and connections between the latter and said clamps by which the latter may be thrown upward simultaneously, substantially as specified. 120

4. In a box-wrapping machine, a framework comprising a horizontal top portion and supports therefor, with openings in said top portion, clamping-plates hinged in said openings, 125 a paste body mounted on said table-top and between the paste body and the clamping-plates, a swinging yoke-frame on said table-top, a paste-applying device on said yoke and means for imparting a simultaneous upward- 130 swinging movement to said clamping-plates, substantially as specified.

5. A box-covering apparatus, embodying a platform having an opening therein, a paste-



receptacle on the platform and alined with the opening, a slide adjustable in the opening toward and away from the paste-receptacle, the slide and the platform having openings formed therein, cover-folding plates having their adjacent edges hinged within said openings and capable of upward-swinging movements, means including a foot-lever connected to the under sides of the plates for swinging the same simultaneously upwardly and inwardly, an adjustable gage-block opposite the interval between the hinged plates, a yoke having its ends hinged to the platform between the paste-receptacle and the hinged plates and capable of being alternately swung over the same, and a paste-applying device pivotally hung from the yoke and movable therewith over the paste-receptacle and the adjacent hinged plate.

6. A box-covering apparatus, having a pair of spaced hinged cover-folding members, one of which members is adjustable toward and away from the other to vary the size of the interval between the members and thereby accommodate the apparatus to boxes of different sizes.

7. A box-covering apparatus, having a pair of spaced hinged cover-folding members, one

of which is carried by a slide that is adjustable toward and away from the other member.

8. A box-covering apparatus, having a pair of spaced hinged cover-folding members, one of which is adjustable toward and away from the other, and means connected to both members for swinging the same upon their hinged supports, and including an adjustment to accommodate said means to adjustments of the adjustable cover-folding member.

9. A box-covering apparatus, having a pair of spaced hinged cover-folding members, one of which is adjustable toward and away from the other, and means for manipulating the members, consisting of a controlling-lever, a connecting-rod connected thereto, a cross-head on the connecting-rod, and independent links connected to the cross-head and also to the respective cover-folding members, the link which is connected to the adjustable member having a connection with the cross-head which is adjustable longitudinally upon said cross-head.

FREDERICK HENRY.

In presence of—

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A. L. PHELPS.