

No. 648,683.

Patented May 1, 1900.

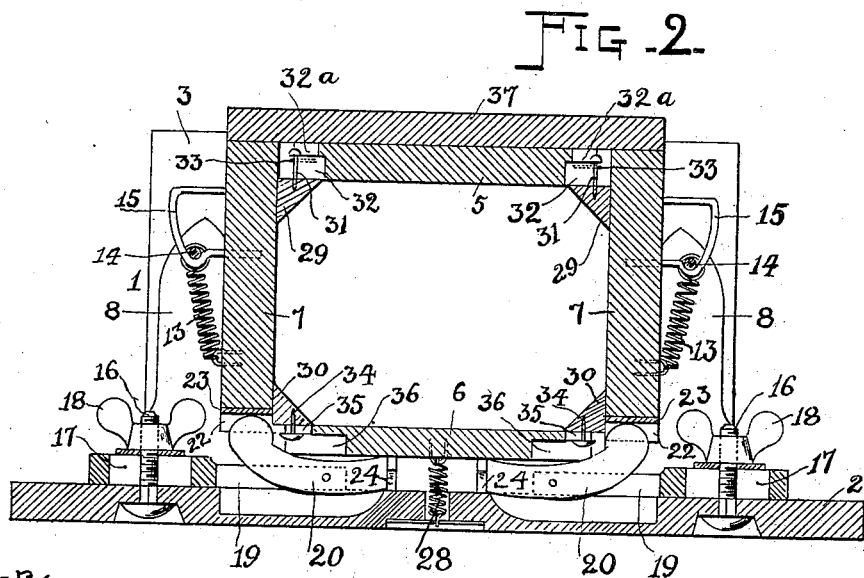
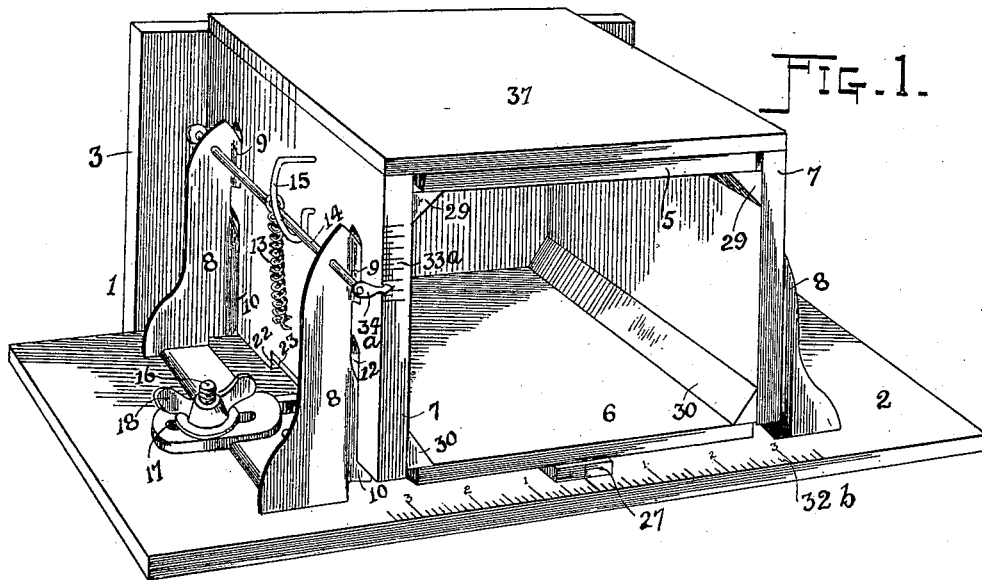
D. A. DAVIDSON.

CIGAR BUNDLER.

(Application filed Dec. 30, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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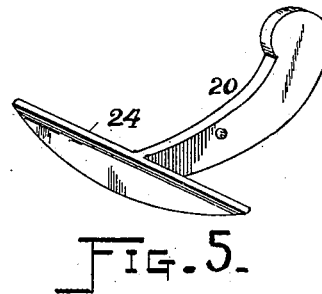
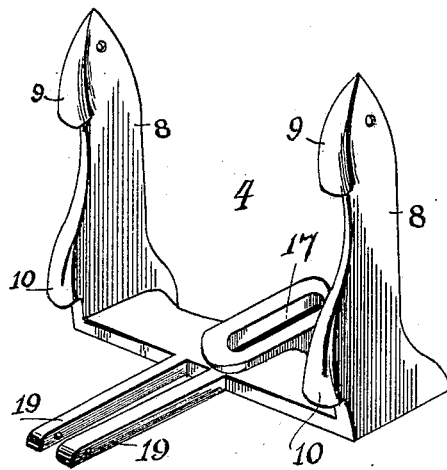
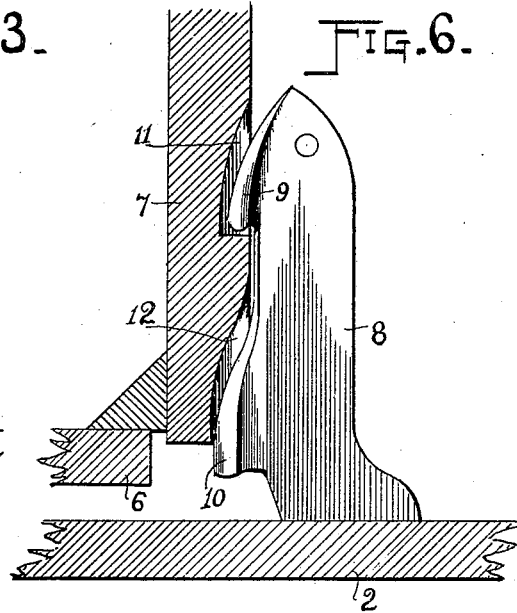
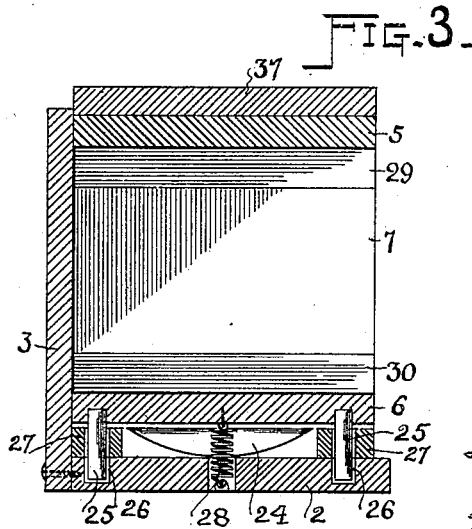
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2 Sheets—Sheet 2.



Witnesses

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UNITED STATES PATENT OFFICE.

DUNCAN ALBERT DAVIDSON, OF KINGSTON, CANADA.

CIGAR-BUNDLER.

SPECIFICATION forming part of Letters Patent No. 648,683, dated May 1, 1900.

Application filed December 30, 1898. Serial No. 700,718. (No model.)

To all whom it may concern:

Be it known that I, DUNCAN ALBERT DAVIDSON, a subject of the Queen of Great Britain, residing at Kingston, in the Province of Ontario and Dominion of Canada, have invented a new and useful Cigar-Bundler, of which the following is a specification.

The invention relates to improvements in cigar-bundlers.

10 The object of the present invention is to improve the construction of cigar-bundlers and to provide a simple, inexpensive, and efficient one adapted to be operated by an ordinary cigar-packer's press and capable of simultaneously applying pressure to the four sides of a bundle of cigars, whereby such pressure is uniformly and effectively applied.

15 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings, Figure 1 is a perspective view of a cigar-bundler constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of one of the adjustable brackets. Fig. 5 is a similar view of one of the T-shaped levers. Fig. 6 is a detail sectional view illustrating the construction for forcing the side followers inward.

25 Like numerals of reference designate corresponding parts in all the figures of the drawings.

30 1 designates a supporting-frame comprising a base 2 and a back 3 and having a pair of longitudinally-adjustable brackets 4 mounted upon it, and between the brackets are arranged top, bottom, and side followers 5, 6, and 7, adapted to move inwardly simultaneously to compress a bundle of cigars on each of its four sides. The brackets 4, which may be constructed of any suitable metal—such as steel, brass, or the like—is composed of a horizontal bottom portion and a pair of uprights 8, located at opposite sides of the horizontal portion and provided adjacent to the outer faces of the side followers 7 with wedge-shaped lugs or enlargements 9 and 10, having inclined engaging edges and arranged in correspond-

ing recesses 11 and 12 of the said side followers 7. The pressure is applied to the upper or top follower by the screw of an ordinary cigar-packer's press, and when the upper or top follower is forced downward it carries with it the side followers 7, which are simultaneously moved inward by the action of the wedge-shaped lugs or projections 9 and 10 of the uprights of the brackets.

60 The side followers, which have smooth inner engaging faces, are returned to their normal position after the device has been relieved of pressure by means of coiled springs 13, connecting at their ends with the side followers 7 and with horizontal rods 14, which pass through registering perforations of the uprights and which are located near the tops thereof, as clearly illustrated in Figs. 1 and 2 of the accompanying drawings. These coiled springs are preferably provided at their terminals with loops which receive the horizontal rods or bolts 14 and which are engaged by staples or other suitable fastening devices for securing them to the side followers, the followers being preferably constructed of wood, although any other suitable material may be employed. The upward movement of the side followers is limited to prevent them from becoming displaced by hooks 15, projecting from their outer faces and arranged to engage the horizontal rods or bolts 14.

75 The brackets are adjustably secured to the base by means of bolts 16, extending upward from the latter and passing through longitudinal slots 17 of the horizontal portion of the brackets, which are engaged by winged nuts 18, washers being preferably interposed between the nuts and the brackets. The heads of the bolts or screws 16 are countersunk in the lower face of the base and do not project therefrom, and by adjusting the brackets the capacity of the device may be varied, the top and bottom followers being replaced by others to vary the width of the device, the measurement-scale 32^b on the upper face of the base being a guidance of the width of the bundle to be made, measurement-scale 33^a on the outer edge of one of the followers 7 being for the purpose of regulating the depth or thickness of the bundle to be made, and the hand 34^a, which is fastened to the outer end of one

of the rods 14, indicating the measurement of the same in inches and fractional parts thereof, if necessary.

The horizontal portions of the brackets are provided with inwardly-extending longitudinal arms 19, forming recesses or slots between them and receiving substantially T-shaped levers 20, which have shanks of bell-crank form. The shanks, which are pivoted between the arms 19, have their outer portions or arms extended upward and arranged to be engaged by the lower edges of the side followers 7, which are provided with recesses 22 to receive the same, wear-plates 23 being arranged in the recesses to be engaged by the outer ends of the bell-crank levers to prevent the wood from becoming worn. The arms 24 of the T-shaped levers are located at the inner ends of the shanks and engage the lower face of the bottom follower 6, at opposite sides of the center thereof, as clearly illustrated in Fig. 2 of the accompanying drawings, and when the pressure is applied to the top follower the bottom one is moved upward steadily.

The bottom follower is guided in its vertical movement by depending pins 25, engaging suitable sockets 26 of the base 2, which is provided at opposite sides with blocks 27, having openings corresponding to the sockets 26 and adapted to form continuations of the same. The blocks 27 prevent the bottom follower from becoming disengaged from the sockets of the base, and a coiled spring 28 is secured at its terminals to the base and to the bottom follower 6, at the centers thereof, and is adapted to return the latter and the bell-crank levers to their normal position when the pressure is removed.

The top follower 5 and the bottom follower 6 are arranged to move between the side followers 7, and they are provided adjacent to the latter with substantially triangular or other suitable shaped strips or corner-pieces 29 and 30, normally projecting beyond the adjacent edges of the followers 5 and 6 and adapted to be moved inward by the side followers when pressure is applied. Each corner strip or piece is slidingly connected with its follower, the top ones 29 being provided with centrally-arranged headed studs 31, consisting of screws which pass through slots 32 of the ends of the top follower, the heads of the screws being arranged in recesses 32^a. The screws 31 are confined in the slots 32 by staples 33 or other suitable fastening devices. The lower strips or corner-pieces 30 have their screws 34 arranged in slots 35 of the bottom follower 6, which has its lower face recessed at 36 to receive the heads of the screws, and the latter are prevented from becoming disengaged from the slots by the side followers 7.

The top follower 5 is mounted on a top piece 37, which projects over the upper edges of the side followers 7 and engages the same, forcing them downward.

The invention has the following advantages: The cigar-bundler, which is simple, inexpensive, strong, and durable, is easily handled and is adapted for compressing bundles of various sizes, and it is capable of simultaneously compressing the four sides and four corners of a bundle of cigars. The top is removable and enables the cigars to be readily arranged in the device, and the brackets are adjustable to vary the capacity of the bundler, the top and bottom followers being replaced by others when the device is changed. When the pressure is applied to the top of the bundler, the sides are forced inward by the wedge-shaped enlargements or lugs of the brackets, and the bell-crank levers operate automatically to lift the bottom follower and force it inward.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. In a device of the class described, the combination of top, bottom and side followers adapted to move simultaneously inward in right lines, and means operated by the descent of the top follower whereby the side followers are pressed inward in right lines, substantially as described.

2. In a device of the class described, the combination of top, bottom and side followers adapted to move simultaneously inward in right lines, means operated by the descent of the follower for pressing the side followers inward and downward, and connections whereby the downward movement of the side followers will cause the bottom follower to move upward and inward, substantially as described.

3. A device of the class described comprising bottom, side and top followers, all arranged to move in right lines, corner strips or pieces slidingly connected with the top and bottom followers, projecting beyond the same and arranged to be engaged by the side followers when the same move inward and means for moving all the followers inward in right lines, substantially as and for the purpose described.

4. A device of the class described comprising side followers, a bottom follower, a top follower, wedge-shaped lugs or projections on uprights arranged to engage the side followers to force the same inward when they are moved downward, levers engaging the bottom follower and arranged to be operated by the downward movement of the side followers, and means for returning the side and bottom followers to their normal position, substantially as described.

5. A device of the class described comprising the top, bottom and side followers, uprights located at the outer faces of the side followers and provided with inclined edges or faces arranged to be engaged by the same, and bell-crank levers engaging the bottom

follower and arranged to be operated by the side followers, substantially as described.

6. A device of the class described comprising the followers arranged to engage the top, bottom and sides of a bundle, the uprights located at the outer faces of the side followers and having wedge-shaped lugs for engaging the same, and the T-shaped levers engaging the bottom follower and having bell-crank shanks arranged to be operated by the side followers, substantially as described.

7. A device of the class described comprising followers arranged to engage the top, bottom and sides of a bundle, uprights provided with inclined edges engaging the side followers to force the same inward, and levers arranged to force the bottom upward when the sides are moved downward substantially as described.

8. A device of the class described comprising followers arranged to engage the top, bottom and sides of a bundle, uprights provided with inclined edges engaging the side followers to force the same inward, levers arranged to force the bottom upward when the sides are moved downward, and springs connected with the side and bottom followers to return the parts to their initial position, substantially as described.

9. A device of the class described comprising a base provided with sockets, followers arranged to engage the top, bottom and sides of a bundle, pins depending from the bottom

follower and fitting in the said sockets, wedge-shaped devices engaging recesses of the side followers to force the latter inward, and connections between the side followers and the bottom follower, whereby the latter will be forced upward as the former move downward, substantially as described.

10. A device of the class described comprising a supporting-frame, brackets adjustably mounted on the supporting-frame and provided with uprights and having inwardly-extending arms arranged in pairs, followers arranged to engage the top, bottom and sides of a bundle, levers fulcrumed between the said arms, engaging the bottom follower and arranged to be operated by the side followers, rods connecting the uprights and located at the top thereof, hooks mounted on the side followers and engaging the rods to limit the upward movement thereof, and springs connected with the side and bottom followers to return the same to their normal position, measurement-scales to regulate the width and thickness of the bundle, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DUNCAN ALBERT DAVIDSON.

Witnesses:

W. H. DALBY,

H. A. H. OLIVER.