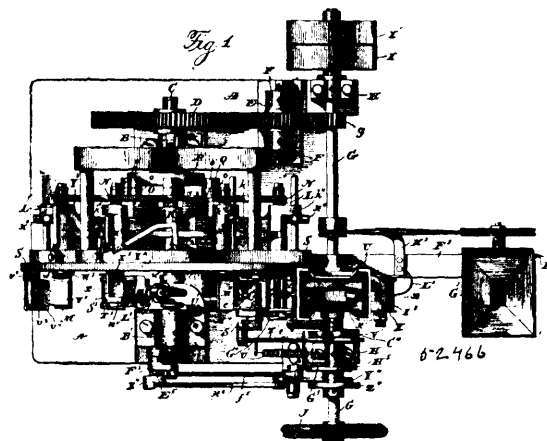


machine, the combination of the mandrel or former, means for forming box ends and sides thereon, a pinion and rack mechanism for rotating said mandrel, a support for holding a box-bottom in position for attachment to the blank on the mandrel, means for attaching paper to said blank and the bottom, and means for moving the bottom on its paper connection, with the ends and sides blank on the mandrel to place the same in its proper relative position in the finished box, substantially as and for the purpose shown. 12th. In a box making machine, the combination of the travelling mandrel, means for forming box ends and sides thereon, a pinion and rack mechanism for rotating said mandrel, a hopper for box bottoms, a support for one end of a blank fed from the hopper, relative to which the mandrel moves, means for attaching paper to the blank on the mandrel and to the box bottom, and arms to engage the latter as the mandrel moves along, substantially as and for the purpose described. 13th. In a box making machine, the combination of the travelling mandrel, a pinion and rack mechanism for rotating said mandrel, means for forming box ends and sides thereon, a hopper for box bottoms, a support for one end of a blank fed from the hopper, relative to which the mandrel moves, a knife, an arm to move paper against the latter and into contact with the blank on the mandrel and the bottom, and arms to engage the latter as the mandrel moves along, substantially as and for the purpose specified. 14th. In a box making machine, the combination of the travelling mandrel, a pinion and rack mechanism for rotating said mandrel, its carrier, a finger, a cam-arm and spring for moving the finger relative to the path of the mandrel, and a part carried by the carrier to engage the cam-arm, substantially as and for the purpose shown. 15th. In a box making machine, the combination of the travelling mandrel, a pinion and rack mechanism for rotating said mandrel, its carrier, a folding finger, means to move the same, and a supplemental finger connected therewith, substantially as and for the purpose described. 16th. In a box making machine, the combination of a mandrel, means for forming a box part thereon, a pinion and rack mechanism for rotating said mandrel, means for folding paper on the exterior of the box part, and means for folding and securing the paper on the interior of the box part, comprising a device for sliding the box part off the mandrel, fingers for turning the paper across the open end of the box part, and a follower for pushing the box part back on the mandrel, substantially as and for the purpose shown. 17th. In a box making machine, the combination of a mandrel, means for forming a box part thereon, a pinion and rack mechanism for rotating said mandrel, a device for sliding a box part off the same, a follower in line with said box part as it is moved off the mandrel, pivoted fingers moveable into and out of the path of said box part, and means to move the follower to replace the box part on the mandrel, substantially as and for the purpose specified. 18th. In a box making machine, the combination of a mandrel, means for forming a box part thereon, a pinion and rack mechanism for rotating said mandrel, a device for sliding a box part off the same, a follower in line with the box part as it is moved off the mandrel, a spindle to which the follower is attached, pivoted fingers moveable into and out of the path of the box part, a collar on the spindle engaging said fingers to move them in one direction and a spring or springs to move them in the opposite direction, substantially as and for the purpose shown. 19th. In a box making machine, the combination of a mandrel, means for forming a box part thereon, a pinion and rack mechanism for rotating said mandrel, a device for sliding a box part off the same, a follower in line with the box part, as it is moved off the mandrel, a spindle to which the follower is attached, cam mechanism for moving the spindle, pivoted fingers moving into and out of the path of the box part, a collar on the spindle engaging said fingers, a sleeve on the spindle also engaging the fingers, and a spring connecting each finger and said sleeve, substantially as and for the purpose set forth. 20th. In a box making machine, the combination of a mandrel, means for forming a box part thereon, a pinion and rack mechanism for rotating the mandrel, a device for sliding a box part off the same, a follower in line with the box part as it is moved off the mandrel, means for reciprocating said follower, a support for the box part when it moved off the mandrel, the fingers for folding the covering paper across the end of the box part, substantially as and for the purposes described. 21st. In a box making machine, the combination of the travelling mandrel, means for forming a box part thereon, a pinion and rack mechanism for rotating said mandrel, devices for folding within the box part of the covering paper, and a carrier for said devices that moves along with the mandrel, substantially as and for the purposes specified. 22nd. In a box making machine, the combination of the rotatable series of mandrels, means for forming a box part upon each of the same, a pinion and rack mechanism for rotating each of said mandrels, devices for folding within the box part of the covering paper, and an arm carrying said devices that is pivoted concentric with the series of mandrels, substantially as and for the purposes shown. 23rd. In a box making machine, the combination of a travelling mandrel or corner, a pinion and rack mechanism for rotating the same, a hopper for blanks to form the sides and ends of the box, mechanism for feeding such blanks one at a time into the path of the mandrel, the movable fingers in the path of the mandrel to fold the blanks thereon, a hopper containing box bottoms, mechanism for feeding bottoms one at a time therefrom, a source of supply of paper, means for applying paste or glue to such paper, means for affixing the free end of the paper to the folded blank upon the mandrel and to the fed-out box

bottom, a paper cutting mechanism, a series of arms for folding and pasting the paper to the box-bottom, and devices for folding and pasting the paper against the interior of the box, substantially as and for the purpose described. 24th. In combination with a hopper, the shouldered feeding-piece moveable across the bottom of the same, having its shouldered portion grooved, and a part at the exit side of the hopper to project into the groove of the feeding piece, substantially as and for the purpose specified. 25th. In combination with a hopper, the shouldered feeding-arm moveable across the bottom of the same, having a groove in the shouldered portion, and a plate having a rib to project into such groove, and pressed yieldingly towards the arm, substantially as and for the purpose shown.

No. 52,466. Box Cover Making Machine.

(Machine à faire les couvercles de boîtes.)



The Diamond Match Company, Chicago, Illinois, U.S.A., assignee of Charles Loyens and Anders Paulson, both of Brede, Holland, 1st June, 1896; 18 years. (Filed 8th April, 1896.)

Claim.—1st. In a machine for making box covers, the combination of a travelling mandrel, a pinion and rack mechanism for rotating said mandrel, a source of supply of blanks, the two pivoted folding-plates in the path of the mandrel, means for feeding one blank at a time from the source of supply to a position in line with said plates, the devices for folding the ends of the blank upon the mandrel, and the series of rollers for attaching paper to the folded blanks, substantially as and for the purpose specified. 2nd. In a machine for making box covers, the combination of a revolving carrier, a series of rotary mandrels carried thereby, a pinion and rack mechanism for rotating each mandrel, a source of supply of blanks, the two pivoted folding-plates in the path of the mandrels, means for feeding one blank at a time from the source of supply to a position in line with said plates, the devices for folding the ends of the blanks upon the mandrel, and the series of rollers for attaching paper to the folded blank, substantially as and for the purpose specified. 3rd. In a machine for making box covers, the combination of a revolving carrier, a series of rotary mandrels carried thereby, a pinion and rack mechanism for rotating each mandrel, a source of supply of blanks, means for feeding blanks one at a time into the path of the mandrels, the devices for folding a blank upon each mandrel, a source of supply of paper, the series of rollers for attaching the paper to the blank and the cutting mechanism for severing the paper from the roll, substantially as and for the purpose specified. 4th. In a machine for making boxes, the combination of a travelling mandrel, a pinion and rack mechanism for rotating the same, folding devices for co-operating therewith, and a label affixing device adapted to move along with the mandrel, substantially as and for the purpose shown. 5th. In a machine for making box parts, the combination of the revolving mandrel carrier, means for forming a box part on the mandrel, a pinion and rack mechanism for rotating the mandrel, a label holder adapted to move along with the mandrel, and means for feeding a label therefrom to the box part upon the mandrel, substantially as and for the purpose specified. 6th. In a machine for making box parts, the combination of the revolving mandrel carrier, means for forming a box part on the mandrel, a pinion and rack mechanism for rotating the mandrel, a pivoted label-holder, means for moving the same to and from the path of the mandrel, and means for feeding a label therefrom to the box part upon the mandrel, substantially as and for the purpose specified. 7th. In a machine for making box parts, the combination of the revolving mandrel-carrier, means for forming a box part on the mandrel, a pinion and rack mechanism for rotating the mandrel, a label-holder adapted to move along with the mandrel pivoted concentric therewith, means for moving the same to and from the path of the mandrel, means for moving said label-holder along with the mandrel, and means for feeding a label therefrom to the box part upon the mandrel, substantially as and for the purpose specified. 8th. In a machine for making box parts, the combination of the