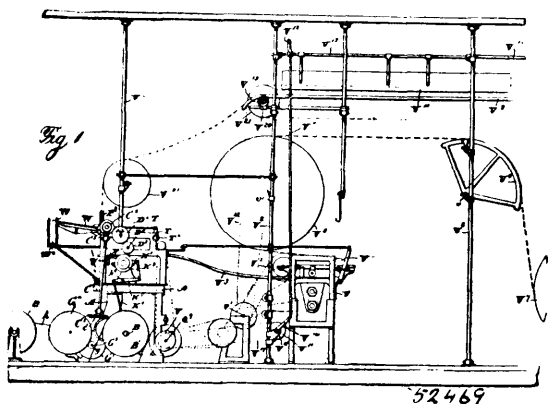


forked lever connected with the frame, and devices engaged by the forked arms, adapted to be engaged and moved by opposite edges of the belt as the latter moves to one side or the other of its proper position, substantially as and for the purpose set forth. 4th. In combination with the belt, the roller, the movable collars on opposite sides of the belt where the latter passes over the roller, the second roller, the swinging frame upon which the latter is journaled, and the lever connected with the frame and the collars, substantially as and for the purpose described.

No. 52,469. Match-making Machine.

(Machine à faire des allumettes.)



The Diamond Match Company, Chicago, Illinois, Assignee of Ebenezer Benton Beecher, Westville, and Jacob Pulver Wright, New Haven, both in Connecticut, all in the U. S. A., 1st June, 1896; 18 years. (Filed 8th April, 1896.)

Claim.—1st. In a machine for making matches, in combination with a source of supply of a continuous strip of material, from which the sticks or bodies of the matches are to be made, a carrier for such sticks or bodies, intermittently acting devices for inserting the strip into the carrier, and continuously acting drawing devices, drawing the strip from the source of supply and feeding it to the inserting devices, so that before each movement of the latter there will be a slack portion of the strip between the drawing and inserting devices, substantially as and for the purpose specified. 2nd. In a machine for making matches, in combination with a source of supply of a continuous strip of material, from which the sticks or bodies of the matches are to be made, a carrier for such sticks or bodies, intermittently acting devices for inserting a portion of the strip into the carrier and cutting off enough to form the desired match sticks, and a means for drawing the strip from the source of supply and feeding it into the inserting devices, arranged to draw enough of the strip from the source of supply, before each movement of the inserting devices, to produce a slack portion in the strip, between such inserting devices and the means for drawing the strip, substantially as and for the purpose shown. 3rd. In a machine for making matches, in combination with a carrier for the match sticks, a source of supply of a continuous strip of material from which such sticks are to be formed, continuously rotating drawing rolls to draw the strip from the source of supply, and intermittently acting devices for inserting the strip end into the carrier, substantially as and for the purpose set forth. 4th. In a machine for making matches, in combination with a carrier for the match sticks, a source of supply of a continuous strip of material from which such sticks are to be formed, continuously rotating drawing rolls to draw the strip from the source of supply, intermittently acting devices for inserting the strip end into the carrier, and a means for cutting the strip, substantially as and for the purpose described. 5th. In a machine for making matches, in combination with a carrier for the match sticks, a source of supply of a continuous strip of material from which such sticks are to be formed, continuously rotating drawing rolls to draw the strip from the source of supply, intermittently acting devices for inserting the strip end into the carrier, and a means for cutting the strip, substantially as and for the purpose specified. 6th. In a machine for making matches, in combination with a carrier for the match sticks, a source of supply of a continuous strip of material from which such sticks are to be formed, the rotating drawing rolls to draw the strip from the source of supply, the feed rolls to feed the strip into the carrier, one having a grooved periphery and the other having an elastic face engaging and holding the strip in the groove of the other, and means for rotating the feed rolls

with a step by step movement, substantially as and for the purpose set forth. 8th. In a machine for making matches, in combination with a source of supply of a continuous strip of the material of which the match sticks are to be formed, the rotating drawing rolls, having elastic faces to grip the strip, the two feed rolls, one having in its periphery a groove to receive the strip, and the other having an elastic face to engage the strip and hold it in the groove of the former feed roll, and means for giving such feed rolls a step by step rotation, made adjustable to regulate the travel of the peripheries of the rolls at each forward step, substantially as and for the purpose described. 9th. In a match-making machine, in combination with the carrier for the match sticks, the intermittently rotating feed rolls for feeding the material for such sticks up into the carrier, one having a groove to receive the strip of material, and the other having an elastic face, substantially as and for the purpose specified. 10th. In a match-making machine, in combination with the carrier for the match sticks, the intermittently rotating feed rolls, the one grooved and the other having an elastic face opposing the grooved face of the former roll, gearing connecting the rolls together, a ratchet-wheel connected with the shaft of one roll, a lever carrying a pawl to engage the ratchet-wheel, means for swinging such lever, and an adjustable connection between such means and the lever made adjustable along the latter to adjust its throw, substantially as and for the purpose shown. 11th. In a machine for making matches, in combination with a carrier for the match sticks, a source of supply of a continuous strip of material from which such sticks are to be formed, intermittently acting feed devices, a guide to inclose the strip and guide it from the feed devices towards the carrier, and a cutter actuated to cut the strip close to the upper end of such guide, substantially as and for the purpose set forth. 12th. In a machine for making matches, in combination with a carrier for the match sticks, a source of supply of a continuous strip, from which such sticks are to be formed, continuously acting drawing devices, to draw the strip from the source of supply, intermittently acting feed devices, a guide to inclose the strip and guide it from the feed devices towards the carrier, and a cutter actuated to cut the strip between the feed devices and the carrier, substantially as and for the purposes described. 13th. In a machine for making matches from a strip of material, in combination with the carrier for the match sticks, feed devices for the strip, a guide beyond such devices, arranged to guide and inclose closely the strip, on its way to the carrier from the feed devices, and a cutter for cutting the strip arranged to cut in close contact with the edge of the opening in the guide, substantially as and for the purpose specified. 14th. In a machine for making matches from a strip of material, in combination with the carrier for the match sticks, feed devices for the strip, a guide beyond such devices arranged to guide and inclose closely the strip on its way to the carrier from the feed devices, and a cutter for cutting the strip arranged to cut in close contact with the edge of the opening in the guide, substantially as and for the purpose shown. 15th. In a machine for making matches from a strip of material, in combination with the carrier for the match sticks, feed devices for feeding the strip, a guide between the carrier and the feed devices, having the opening to receive and guide the strip, fitting such strip closely, a cutter moving over the outer end of the opening in close contact with the edges of the latter, and a pressure device engaging the cutter and pressing it towards the plane of such edges, substantially as and for the purpose set forth. 16th. In combination with the guide for the strip of material, having the opening to fit and support the strip during the cutting operation, a cutter having its edge adapted to slide over the end of such opening close to the edges thereof, means for moving the cutter, and a spring presser engaging the cutter, so as to press it towards the plane of the edge of the opening, substantially as and for the purpose described. 17th. In combination with a piece having in it an opening to fit and support a strip passed up through it, a cutter having its cutting portion resting on such piece so as to bring its edge close to the plane of the edges of the opening, a spring, and a movable piece engaged by the spring and engaging the cutter, so that the force of the spring acts to bear the cutter down into close contact with the plane of the edges of the opening, substantially as and for the purpose specified. 18th. In combination with a piece containing a series of openings, through which strips can be passed, a series of cutter bars, means for guiding the latter, an actuating head connected with the bars, and a series of spring pressure devices, one for each bar, pressing forward portions of such bars towards the face of the piece in which are the openings, substantially as and for the purpose shown. 19th. In combination with a piece containing a series of openings, through which strips can be passed, a series of cutter bars, one for each opening, means for guiding such bars, an actuating head connected with the bars, a series of springs, one for each cutter bar, and the series of movable pieces interposed between the springs and the respective cutter bars, whereby the pressure of the springs towards the face of the piece containing the openings is transmitted to the forward portions of the cutter bars, substantially as and for the purpose set forth. 20th. In combination with the plate containing the guiding openings for the material to be cut, the series of cutter bars, having their cutting ends sliding over such plate, the plate provided with the grooves for guiding the bars, a series of springs one for each of the bars, the movable lugs between the springs and the cutter bars, and means for actuating such bars, to slide them over the openings in the first-named plate, substantially as and for the purpose described. 21st. In combination with