

roll, of a cutter arranged to act alternately therewith to sever the material advanced by the roll. 14th. In a bag machine, the combination of an intermittently acting feed-roll, an intermittently acting cutter arranged to act in alternation with the feed-roll, and a yielding presser plate movable with the cutter and serving to hold the material while being cut, and to release it when the cutter rises and the roll begins to feed. 15th. In combination with stitching mechanisms as E, E', a reel B for containing a supply of goods to be hemmed, a movable plate C bearing against the goods between the reel and the stitching mechanism, and a spring bearing against said plate and serving to hold it against the goods with a yielding pressure, substantially as and for the purposes set forth. 16th. In combination with a stitching mechanism and a reel for holding the goods to be stitched, an intermediate yielding plate bearing against the goods and provided with inwardly turned lips to fold the edges of the goods preparatory to stitching. 17th. In combination with stitching mechanisms as E, E', and with reel B, intermediate swinging plate C, and spring D bearing against said plate and serving to hold the same, with a yielding or elastic pressure, against the goods passing from the reel to the stitching mechanism. 18th. In combination with stitching mechanisms as E, E', each provided with the usual feeding devices, and both adapted to feed in the same direction, a feed-roll J in rear of said stitching mechanisms, timed to feed exactly in unison therewith, whereby the feed-dogs are relieved of a portion of the labor and strain of feeding the material forward, and the material is kept smooth and fed equally throughout its width. 19th. In combination with sewing mechanisms as E, E', feed-rolls J, K, in rear thereof, the roll J provided with a ratchet-wheel g, and the shaft of one of the sewing mechanisms being provided with an eccentric j and a pitman i, provided at one end with a dog b, to engage with the ratchet-wheel g, and connected at the other end with eccentric j. 20th. In combination with sewing mechanisms as E, E', an intermittently acting cutter, as S, a feed-roll L located between the sewing mechanism and the cutter, and provided with a ratchet-wheel k, an eccentric X rotating synchronously with the movements of the needle of the stitching mechanism, a pitman connected with said eccentric, dogs or pawls f, i, carried by the pitman and serving alternately to push and pull the ratchet-wheel, and a cam-disk it adapted and arranged to throw the dogs out of engagement with the ratchet-wheel. 21st. In combination with a sewing mechanism, as E, eccentric X, pitman Q connected with said eccentric and provided with dogs f, i, feed-roll L provided with ratchet-wheel k, cam-disk R provided with notch y, cross-head T provided with cutter S, and rod p, and stud u projecting from said rod and adapted to enter the notch y, and turn disk R. 22nd. The combination of feed-roll L provided with ratchet-wheel k, a reciprocating pitman provided with pawls to engage with and rotate said wheel, a cam-plate to throw said pawls out of engagement with the ratchet-wheel, a reciprocating cross-head T, provided with a cutting-blade S, and a rod p carried by the cross-head and provided with a stud u, to engage with and move the cam-plate as the cross-head and knife rise and fall, said parts being constructed and arranged substantially as set forth, whereby the feed-roll is caused to advance a given quantity of material to the cutter, then to come to rest and hold the material against further movement while the cutter descends and rises again clear of the material. 23rd. In combination with cross-head T provided with blade or cutter S, arms s and tubular necks o, stems t, i, provided with plates u, u, and springs v, v, encircling the stems and serving to press the stems and plates downward. 24th. In combination with presser-plates u, u, folding plate Y, adapted and arranged to rise between said parts, for the purpose set forth. 25th. In combination, with yielding presser-plates u, u, folding-plate Y provided with a serrated edge and arranged, substantially as described and shown, to rise and carry the bag material upward between the presser-plates, the serrated edge serving to prevent the material from shifting its position upon the plate. 26th. In combination with presser-plates u, u, and sewing mechanism above the same, a folding plate arranged to rise between the plates and to carry the material lying beneath them in a folded condition to the sewing mechanism. 27th. In combination with sewing mechanism, as Z, presser-plates below said mechanism, a bed beneath said presser-plates, and a folding-plate mounted in an opening in the bed and arranged to rise between the plates, to fold the material lying beneath them and to carry it to the sewing mechanism, said folding-plate being notched to clear the feeding devices of the stitching mechanism. 28th. In combination with cross-head T provided with blade S, presser-plates u, u and stud v, folding-plate Y, slide D, and lever C pivoted between the slide D and plate Y, and supporting said parts at opposite sides of its pivot, and rotary shaft V provided with cams W and B, the former serving to operate the cross-head and the parts carried thereby, and the latter serving to actuate the slide D, lever C and folding-plate Y. 29th. A bag machine consisting of a bed or table, guides for folding the edges of a strip of material moving over the table, sewing mechanism arranged to stitch the two folded edges simultaneously, an intermittently acting feed device in rear of, and adapted to feed faster than, the sewing mechanism, an intermittently acting cutter arranged to act alternately with the intermittent feed device, yielding presser-plates adapted to bear upon and hold the material during the operation of the cutter, a folding-plate adapted to rise between the presser-plates, fold the material and carry it upward, and sewing mechanism arranged to receive the folded material from the folding-plate, and gearing and actuating mechanism, substantially as shown and described, for imparting motion to the various parts. 30th. The combination, in a bag machine, of the following elements, to wit: a supporting-bed A, folders b, to turn the edges of material passing over the bed, sewing mechanisms E, E', for stitching the folded edges, feed-rolls J, K, in rear of the stitching mechanisms, ratchet-wheel g secured upon roll J, pitman i provided with dog h, to engage with ratchet-wheel g and connected with eccentric j, spring arms O provided with cross-bar N, feed-rolls L, M, ratchet-wheel k, secured upon roll L, pitman Q provided with dogs f, i, to engage with said ratchet-wheel and connected with eccentric X, cam-plate R reciprocating cross-head T provided with blade S and stud v, presser-plates u, u, carried by the cross-head s, rings it serving to press the plates down upon the bed, folding-plate Y, lever C and slide D, stitching mechanism Z, s, above the presser and folding-plates, shaft V provided with cams W and B, shafts t and H, and gearing connecting

said shafts with each other and with the sewing mechanisms. 31st. The herein described method of forming bags, which consists in, first, hemming the two ends of a strip of bag material, next severing from the strip a portion sufficient for one bag, then folding the material parallel with and midway between the two hems, and finally joining the edges extending from the fold to the outer edges of the hems. 32nd. As a new article of manufacture, a cloth bag having a folded or seamless bottom, stitched side seams and a hemmed mouth. 33rd. In the process of manufacturing bags, the steps which consists in folding the bag material across its middle to form the bottom, and then stitching the edges together to form the sides. 34th. A bag of woven material having a folded seamless bottom and stitched side seams, substantially as shown and described.

No. 28,812. Valve Mechanism for Air Compressors, etc. (*Mécanisme de soupape pour pompes à air, etc.*)

Edwin Reynolds, Milwaukee, Wis., U.S., 4th April, 1888, 15 years.

Claim.—1st. In an air compressor, blowing engine, or like machine, the combination of a self-opening delivery valve, a rod having a sliding connection with said valve and serving, when moved in one direction, to close the same, a catch adapted to hold the valve closed, and a movable stem or trip subject to the opposing pressures of the fluid in the receiver and in the compressor, and arranged to act upon the catch, whereby the catch is caused to hold the delivery valve closed until the trip is moved by the pressure of the fluid in the compressor, overcoming the pressure or resistance of the fluid in the receiver, and then to release the valve, thereby permitting the latter to open. 2nd. In combination with the delivery valve of an air compressor, blowing engine, or like machine, a connecting device between said valve and a moving part of the machine for closing the valve, a catch or hook for holding said valve closed, a weight or spring for opening said valve when released by the catch, and a trip controlled by the pressures in the air cylinder and in the receiver for releasing the catch, whereby the delivery valve is released and opened when a certain predetermined relation is established between the receiver and cylinder pressures. 3rd. In an air compressor, blowing engine or like machine, the combination of a self-opening delivery valve, a catch for holding said valve closed, a rod or connection extending from a moving part of the machine to the valve and serving to close the latter, a cylinder communicating at opposite ends with the air cylinder and the receiver, and a piston arranged within said cylinder and serving to release the catch, when the pressure on the face of the piston receiving air from the air cylinder overcomes the pressure on the face receiving air from the receiver. 4th. In combination with the delivery valve of an air compressor, blowing engine, or like machine, a catch adapted to engage said valve and hold it closed, and a trip for releasing said catch, actuated and controlled by the relative pressures in the air cylinder and in the receiver. 5th. In combination with the delivery valve of an air compressor, blowing engine, or like machine, a catch adapted to engage and hold said valve out of action, a trip for releasing said catch, actuated and controlled by the relative pressure in the air cylinder and in the receiver, and an adjustable resistance for varying the point of relative pressures at which the trip shall release the catch. 6th. In combination with air cylinder A, head B provided with valve chambers, inlet valve C, delivery valve D, wrist-plate W, rod R, connecting valve C, with the wrist-plate, slotted rod R, connecting valve D and the wrist plate arm E, attached to stem of valve D, and provided with block G, hook or catch L, provided with tail M, cylinder O, piston P arranged within said cylinder, rod S extending from the piston to a point just beneath tail M, and pipes T and U respectively connecting opposite ends of cylinder O with the air receiver and the air cylinder. 7th. In an air compressor, blowing engine, or like machine, the combination of a delivery valve provided with a weighted arm and with a projecting block or lug, a pivoted catch adapted and arranged to engage with said lug and to hold the valve closed, a cylinder communicating at its opposite ends with the air receiver and air cylinder, and a piston located within said cylinder and serving to release the catch when the pressure from the air cylinder reaches a prescribed relation to that from the receiver. 8th. In an air compressor, blowing engine, or like machine, the combination, with the delivery valve D, of two arms rigidly attached to its stem, a pin a carried by one of said arms, a slotted rod connected with a moving part of the machine, and straddling said pin, a pivoted catch L, adapted to engage with the second arm and provided with a tail M, a spring N, bearing upon said tail, cylinder O, communicating at opposite ends respectively with the air receiver and the air cylinder, piston P within said cylinder, and rod S extending from said piston to a point just beneath tail M, when the valve is closed. 9th. In combination with valve D, catch-hook L and tripping devices therefor, constructed and arranged to open as set forth, a variable depressing device applied to the tail of said catch, for the purpose explained. 10th. In combination with valve D and its described tripping mechanism, spring N and set screw Q, bearing upon said spring and serving to vary the resistance of the catch to the force exerted by the piston of the tripping mechanism.

No. 28,813. Weather-Strip for Doors, Windows, etc. (*Bourrelet de porte, fenêtre, etc.*)

Josiah Poyton, New York, N.Y., U.S., 4th April, 1888, 10 years.

Claim.—1st. A flexible tubular hollow weather-strip, consisting of a hollow rounded cushion or pad C, having its two longitudinal edges laid together and firmly stitched to a strengthening textile cord or strip s, so as to form a part of the same, thereby forming a projection or flexible rib along the edges of the rubber cushion C, to be received and firmly held in position by the outer under turned edge u, of the corrugated metallic binding strip w, all constructed, arranged and operating as above set forth. 2nd. In combination with the rounded hollow cushion C, having longitudinal corded edges, a corrugated metallic strip w, having an outward under turned edge to grasp and firmly hold the corded edges of the hollow rubber cushion