

W. S. CLEAVES.
 CARTON MARKING ATTACHMENT.
 APPLICATION FILED APR. 25, 1910.

991,828.

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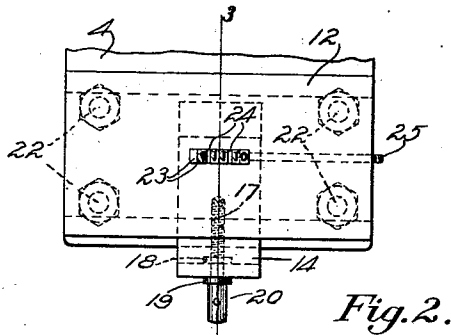


Fig. 2.

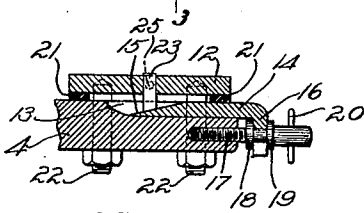


Fig. 3.

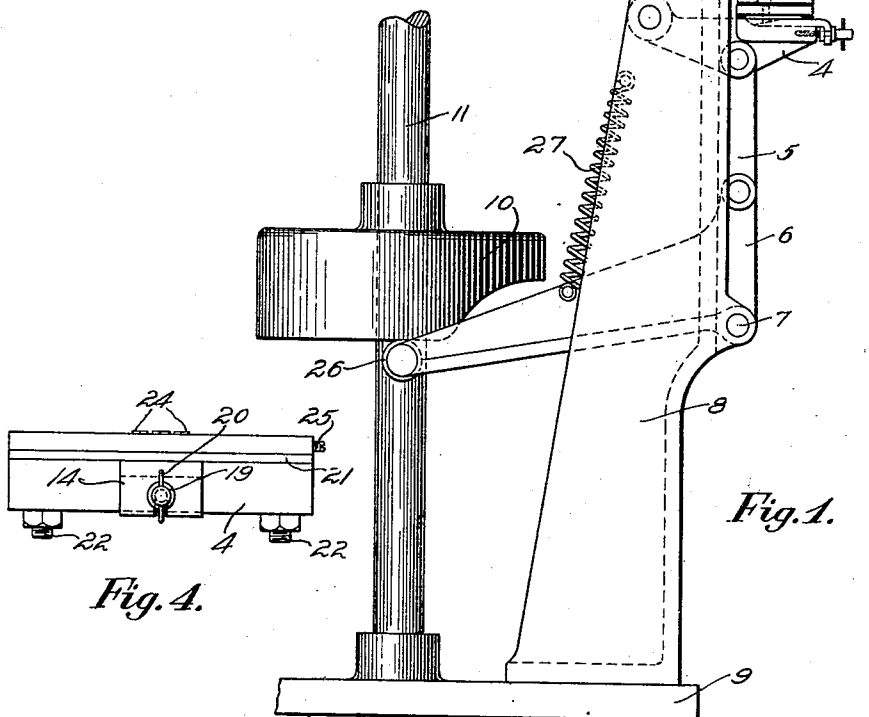


Fig. 1.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM S. CLEAVES, OF REVERE, MASSACHUSETTS, ASSIGNOR TO PNEUMATIC SCALE CORPORATION LIMITED, OF QUINCY, MASSACHUSETTS, A CORPORATION OF MAINE.

CARTON-MARKING ATTACHMENT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM S. CLEAVES, a citizen of the United States, residing at Revere, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Carton-Marking Attachments, of which the following is a specification, reference being had therein to the accompanying drawings.

10 In the putting up of goods in packages, especially food products, it is desirable to have the package marked with some designating mark placed upon the receptacle as, for instance, the date on which the packages
15 are filled, or with some number which would be a sufficient designation, or some mark to indicate the place where the packages were filled, or the packer by whom they were filled, or some other designating mark.
20 Many of the package goods are put up in cartons by machinery and in many factories it is customary for the cartons to be received in knocked-down form, so called, which require to be set up before
25 being filled. In factories doing a large business, the cartons are usually set up by machine, sometimes by a machine independent of the filling machine, and are then transferred to the filling machine, and sometimes the setting up machine is connected with the
30 filling machine in such a manner that the carton is formed and its flaps glued and then automatically transferred to the filling mechanism. Where a setting-up mechanism
35 is connected with the filling mechanism so that the two are operated together, or even where they are operated independently, the packages are usually filled almost immediately after they are set up so that any designating mark placed on the carton during the
40 setting up would answer substantially as well as if the mark were placed on the package after it was filled.

The object of the present invention is to
45 provide a marking device or marking attachment which may be connected with and controlled by the mechanism which controls the operation of the setting-up mechanism or which may be operated independently of the
50 setting-up mechanism.

One form of mechanism for setting up the cartons and sealing the flaps is shown in United States Patent No. 767,445, dated August 16, 1904, and the present invention is
55 especially intended to be used in connection

with a machine of the character described and shown in said patent, it being understood, however, that it is not intended herein to limit the scope of the invention to its application to a machine of that particular
60 type.

The invention will be fully understood from the following description taken in connection with the accompanying drawings, and the novel features are pointed out and
65 clearly defined in the claims at the close of the specification.

In the drawings,—Figure 1 is a side elevation of a portion of a carton setting-up machine like that shown in said patent, showing enough of the machine to illustrate
70 the present invention. Fig. 2 is an enlarged plan of the presser-plate and marking mechanism. Fig. 3 is a section on line 3—3 of Fig. 2. Fig. 4 is an end view of Fig. 3.
75

In the machine shown in said Patent No. 767,445, there is shown mechanism for transferring a carton from the holding block onto a forming block and mechanism for
80 then folding the bottom end closing flaps up against the bottom end of the forming block and gluing and sealing the same successively and then for pressing the sealed flaps up against the bottom end of the
85 former before the carton is removed from the former so as to insure the flaps being firmly sealed together and set before they are removed. In the embodiment of the invention illustrated in the drawings, the marking
90 attachment is connected with the presser-plate so that the marking is produced at the same time that the flaps are pressed. That portion of the machine shown in the drawings is the forming block on which the carton is
95 held and the presser-plate and the mechanism for actuating the same, and the marking mechanism connected therewith. Preferably this marking mechanism is such as to stamp or indent the mark into the carton
100 instead of marking it with ink.

Referring now to the drawings,—1 represents a carton-forming block which is carried by and suspended from the rotary spider arm 2 which is one of a series of radiating
105 arms which carry the forming blocks and attached cartons around through the various folding and sealing instrumentalities. The carton is retained upon the forming block by a spring 28.

The bed-plate 4 is connected by a toggle
110

joint 5 with one arm of a bell-crank lever 6 fulcrumed at 7 in the standard 8 rising from the table 9. The other arm of the lever 6 is engaged and actuated by a rotating cam 10 5 carried by a driving shaft 11 which drives the spider-head which carries the carton-forming blocks 1. Preferably the end of the lever which engages with the cam is provided with a roll 26 which makes direct 10 contact with the cam. A spring 27 holds the roll 26 in constant yielding engagement with the cam. The cam 10 is so formed as to lift the bed-plate 4 during each rotation, thereby bringing the type-holding presser-plate 12 into engagement with the bottom 15 flap of the carton and cause it to dwell for a part of the period of rotation, and then to descend in time to be out of the way for the next period of movement of the spider. The 20 bed-plate 4 is formed with a recess 13 in its upper face extending inwardly from one side. Fitting into said recess is a plate 14 preferably of the same thickness as the depth of the recess and of the same width as the 25 recess, the inner end of said plate having a beveled upper face 15 for the purpose which will be hereinafter described, said plate being supported and adjusted in such manner that it can be moved more or less in or out of 30 said recess and clamped in its adjusted position.

The folding and adjusting means shown are as follows: The outer end of the plate is formed with a turned down flange 16 having 35 a slotted or forked end which straddles an adjusting screw 17 which screws into a tapped out hole in the side of the bed-plate 4. The shank of this adjusting screw 17 is formed with two collars or annular flanges 40 18, 19, spaced apart just sufficient distance to receive between them the thickness of the turned down arm 16 of the plate 14. Preferably it is provided with a finger-piece or pin 20 for convenience in manipulating the 45 screw. By turning the screw, the plate 14 may be moved farther in or out as desired. Interposed between the presser-plate 12 and the bed-plate 4 are strips 21 of rubber or other elastic material to form a yielding 50 cushion for the presser-plate, the presser-plate being clamped down upon the elastic seat by any suitable means, as for instance by screw-bolts 22. The presser-plate 12 is 55 formed with an elongated slot extending through it from the top to the bottom adapted to receive a series of blocks or type-dies 23 whose lower ends are beveled to the same angle as the inclined surface 15 of the plate 14 and whose beveled lower ends rest 60 upon the said beveled face 15 of the plate 14. Space blocks 24 may be used, if desired, between the type-dies. The type-dies are clamped securely in place by a set screw 25 which is screwed into a tapped out hole 65 in the side of the presser-plate 12, the inner

end of the set screw impinging against the end type-die, or against the end space block, outside of the type-die. These type-dies are preferably of steel projecting slightly above 70 the top of the presser-plate and may have their upper ends formed as numerals or letters or any other designating mark and may be arranged in series like type. When the bed-plate 4 is lifted by the toggle-joint 5 and the lever 6, is actuated by the cam 10, 75 as previously described, not only will the presser-plate 12 press the bottom of the carton up against the bottom of the forming block 1, but also the type-dies 23, which project above the plate 12, will be pressed into 80 and indent the bottom of the carton so as to mark the bottom with the letters or numerals of the type-die.

While I have described the device as applying the mark to the bottom of the carton, 85 it is obvious that the carton-holding die might be mounted in such a way that its side instead of its bottom would be engaged by the presser-plate and type-dies and the marking in that case would be applied to the 90 side of the carton instead of to the bottom. This is merely a matter of mechanical adjustment. Also, while I have said that the steel dies are preferred in order to indent the marks, other forms of type may be em- 95 ployed to give surface markings.

What I claim is:

1. A bed-plate, a type-holding plate mounted on said bed-plate, means for clamping together the type-holding plate and bed-plate, 100 said bed-plate being formed with a recess in the upper side thereof, the type-holding plate being formed with a slot extending through the face thereof and opening into the recess in the bed-plate, an adjustable 105 plate which fits in the recess in the bed-plate and is formed with a beveled upper face beneath the said slot in the type-holding plate, type-dies mounted in the slot in said type-holding plate having their lower ends seated 110 upon the beveled face of said intervening plate and means for adjusting said intervening plate to vary the elevation of the type-holding dies.

2. A bed-plate, a type-holding plate mounted on said bed-plate, a cushion between the 115 type-holding plate and the bed-plate, means for clamping together the type-holding plate and bed-plate and interposed cushion, said bed-plate being formed with a recess 120 in the upper side thereof, the type-holding plate being formed with a slot extending through the face thereof and opening into the recess in the bed-plate, an adjustable 125 plate which fits in the recess in the bed-plate and is formed with a beveled upper face beneath the said slot in the type-holding plate, type-dies mounted in the slot in said type-holding plate having their lower ends seated 130 upon the beveled face of said intervening

plate and means for adjusting said intervening plate to vary the elevation of the type-holding dies.

3. A bed-plate, a type-holding plate mounted on said bed-plate, means for clamping together the type-holding plate and bed-plate, the bed-plate being formed with a recess in the upper side thereof, the type-holding plate being formed with a slot extending through the face thereof and opening into the recess in the bed-plate, an adjustable plate which fits in the recess in the bed-plate and is formed with a beveled upper face beneath the said slot in the type-holding plate,

type-dies mounted in the slot in said type-holding plate having their lower ends seated upon the beveled face of said intervening plate, means for adjusting said intervening plate to vary the elevation of the type-holding dies and means for reciprocating said bed-plate and type-holding plate.

In testimony whereof I affix my signature, in presence of two witnesses.

WILLIAM S. CLEAVES.

Witnesses:

GEORGE P. DIKE,

ALICE H. MORRISON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
