

UNITED STATES PATENT OFFICE.

JOSEPH CORBETT, OF NEW YORK, N. Y., ASSIGNOR TO THOMAS F. SHAW,
OF SAME PLACE.

CREASING AND FOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 472,253, dated April 5, 1892.

Application filed June 27, 1891. Serial No. 397,684. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH CORBETT, a citizen of the United States, residing at New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Creasing and Folding Machines, of which the following is a specification.

In the creasing-machines, as well as in the creasing and folding machines, heretofore in use the blank from which the envelope or other article is folded is first creased by means of a male and female die, or, as they are called in this class of machines, by a "plunger" and "box," which serve for the purpose of creasing and bending the flaps at right angles to the body of the blank, which flaps are then folded down on the body by suitable folding devices. For the different sizes of the envelopes or other articles different sizes of plungers and boxes were required, while for extra sizes of the same special plungers and boxes had to be made for the purpose of producing the required size. This is often inconvenient, and when only a small quantity of envelopes or other articles of extra size are required connected with considerable expense and trouble.

The object of this invention is to furnish an improved plunger and box for creasing or creasing and folding machines by which the blanks are creased preparatory to folding and which can be adjusted to any desired size within certain dimensions, so that any required size of envelope or other article can be quickly and conveniently manufactured, and thereby the creasing and folding devices are adapted to the different requirements of the trade.

The invention consists of a creasing device in which the plunger and box are adjustable in longitudinal as well as in lateral direction, the plunger being composed of an exterior frame the sides of which are formed of two plates, which are adjustable on the side bars of an inner frame by suitable guide devices. The side bars of the inner frame are provided with fixed longitudinal and transverse extension-rods, which are guided in suitable keepers of a central plate or web, to which the plunger-rod is attached. The keepers are pro-

vided with suitable fastening devices for rigidly securing said extension-rods when they are adjusted. The box is constructed of stationary parallel rails having guideways, longitudinal bars provided with fixed slide-pieces that are guided in said ways of said rails, transverse bars guided in keepers of the longitudinal bars, and fastening devices for adjusting the transverse bars on the longitudinal bars according to the size of the article to be produced.

In the accompanying drawings, Figure 1 represents a plan, partly in horizontal section, of my improved plunger and box for creasing or creasing and folding machines. Fig. 2 is a vertical longitudinal section on line 2 2, Fig. 1. Fig. 3 is a vertical transverse section of the same on line 3 3, Fig. 1; and Fig. 4 is a detail of the outer frame of the plunger, showing the adjustable plates of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, P represents the plunger, and B the box of my improved creasing device. The plunger P is composed of a central plate *a*, an inner frame *d*, and an outer frame F. The central plate *a* is made of oblong shape and the size of which corresponds to the smallest size of the envelope or other article to be creased by the plunger and box. The central plate *a* is rigidly attached to the plunger-rod R, which is connected with the operating parts of the creasing or creasing and folding machines. To the central plate *a* are applied keepers *b b* by means of screws *b' b'* or other fastening devices, two of said keepers being arranged at each side of the central plate *a*. Each keeper *b* serves for guiding two longitudinal or two transverse extension-rods *d d'*, which are attached, respectively, at opposite ends to the side bars of the inner frame *e* of the plunger P. The longitudinal extension-rods *d* are arranged below the level of the transverse extension-rods *d'*, as shown clearly in Figs. 2 and 3 of the drawings. The extension-rods *d d'* are preferably made of rectangular cross-section, the keepers being shaped to correspond thereto. One set of the longitudinal extension-rods *d* is applied to one side bar of the interior frame *e*, while the

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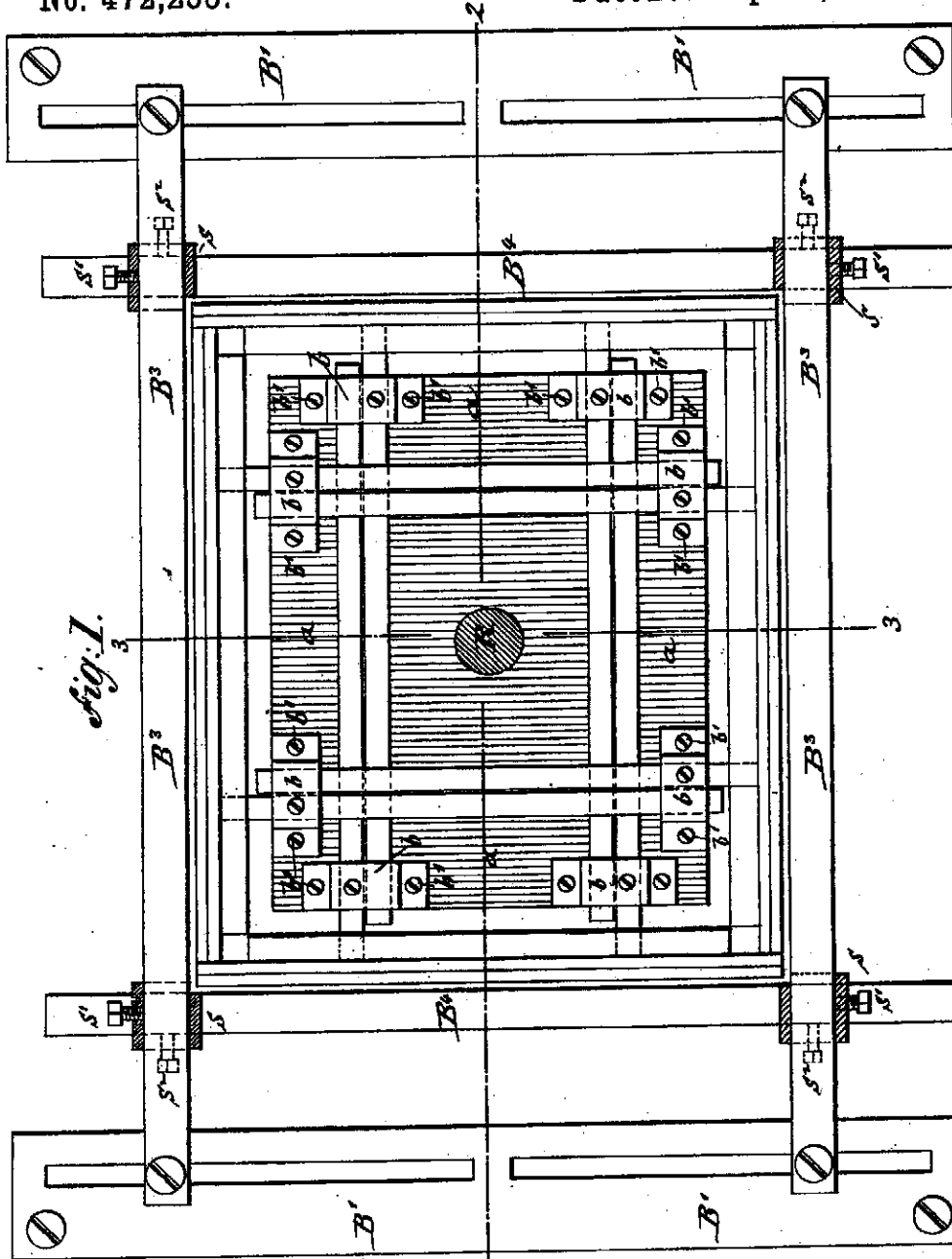


Fig. 1.

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