

UNITED STATES PATENT OFFICE.

JOSEPH CORBETT AND EDWIN R. CORBETT, OF NEW YORK, N. Y., ASSIGNORS
TO THOMAS F. SHAW, OF SAME PLACE.

PLUNGER FOR CREASING OR CREASING AND FOLDING MACHINES.

SPECIFICATION forming part of Letters Patent No. 497,949, dated May 23, 1893.

Application filed March 1, 1892. Serial No. 423,374. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH CORBETT and EDWIN R. CORBETT, citizens of the United States, residing in the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Plungers for Creasing or Creasing and Folding Machines, of which the following is a specification.

This invention relates to certain improvements in the so-called plungers and boxes for creasing or creasing and folding-machines by which the blank from which an envelope or other article is made is creased preparatory to folding, said plungers and boxes being adapted to be readily adjusted for any desired size of blank, so that any required size of envelope or other article can be quickly and conveniently manufactured, so as to meet the different requirements of the trade.

The invention consists of a creasing-device in which the plunger and box are made adjustable in longitudinal as well as in lateral direction, the plunger being composed of an interior frame, the side-plates of which are pivoted to the lower ends of swinging arms, the upper ends of which are pivoted to the plunger-rod, said arms being guided on fixed arms attached to the plunger-rod below the pivot-connection of the swinging-arms with the same, the latter being secured by means of set-screws on said guide-arms. The side-plates of the inner frame of the plunger are adjusted on the lower ends of the pivot-rods by a suitable adjusting-device so as to be set parallel to the side-bars of the creasing-box. Each side-plate of the inner frame is provided with a fixed plate and two adjustable plates that are guided by means of slots and set-screws on the fixed plate, the lower edges of the plates being beveled, so as to produce one continuous edge for the creasing-operation. The box is constructed of stationary parallel rails having guide-slots, longitudinal bars that are guided in the slots of said rails and transverse bars which are guided in keepers on the adjustable bars and provided with fastening-devices for adjusting the transverse bars on the longitudinal bars, according to the size of blank to be creased.

In the accompanying drawings, Figure 1 represents a plan, partly in horizontal section through the plunger-rod of our improved plunger and box for creasing or creasing and folding-machines. Fig. 2 is a vertical longitudinal section on line 2 2, Fig. 1; and Fig. 3 is a side-elevation of the plunger.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the plunger and B the box of our improved creasing-device. The plunger A is supported by four arms a , which are pivoted to ears a' of the plunger-rod A' and which are guided by means of slots a^2 in their middle-portions, or by other means on fixed arc-shaped arms A^2 that are rigidly attached to a downwardly-extending portion A^3 of the plunger-rod A' . The pivot-arms a may be adjusted to any suitable angle of inclination on the guide-arms A^2 and secured thereto by means of set-screws a^4 . The lower ends of the pivot-arms a are connected with the side-plates b of the interior-frame of the plunger by pivots b' which turn in bearings of lugs or ears b^2 of the side-plates b and provided with pinions b^3 rigid on the lugs b^2 and which mesh with worm-screws b^4 supported in laterally-projecting lugs b^5 at the lower ends of the pivot-arms a , said worm-screws meshing with the pinions and permitting the quick and convenient adjustment of the side-plates b to a position parallel with the side-bars of the creasing-box, whenever the angle of inclination of the pivot-arms a to the vertical axis of the plunger has been changed. To each side-plate b of the plunger A is attached by screws d^x a fixed plate d , which in connection with two extensible, longitudinally-recessed plates d' form the exterior frame of the plunger. The lower edge of the fixed plate d is provided with an outwardly-beveled lip d^2 , to which are fitted the correspondingly-beveled lower edges of the adjustable plates d' , so that a sharp creasing-edge is formed along the lower part of the plunger, to whatever position the exterior side-plates of the plunger are adjusted on the fixed plates d . The transverse adjustable plates d' of the plunger extend over the longitudinal side-plates of the same, as shown clearly in Fig. 100

J. & E. R. CORBETT.

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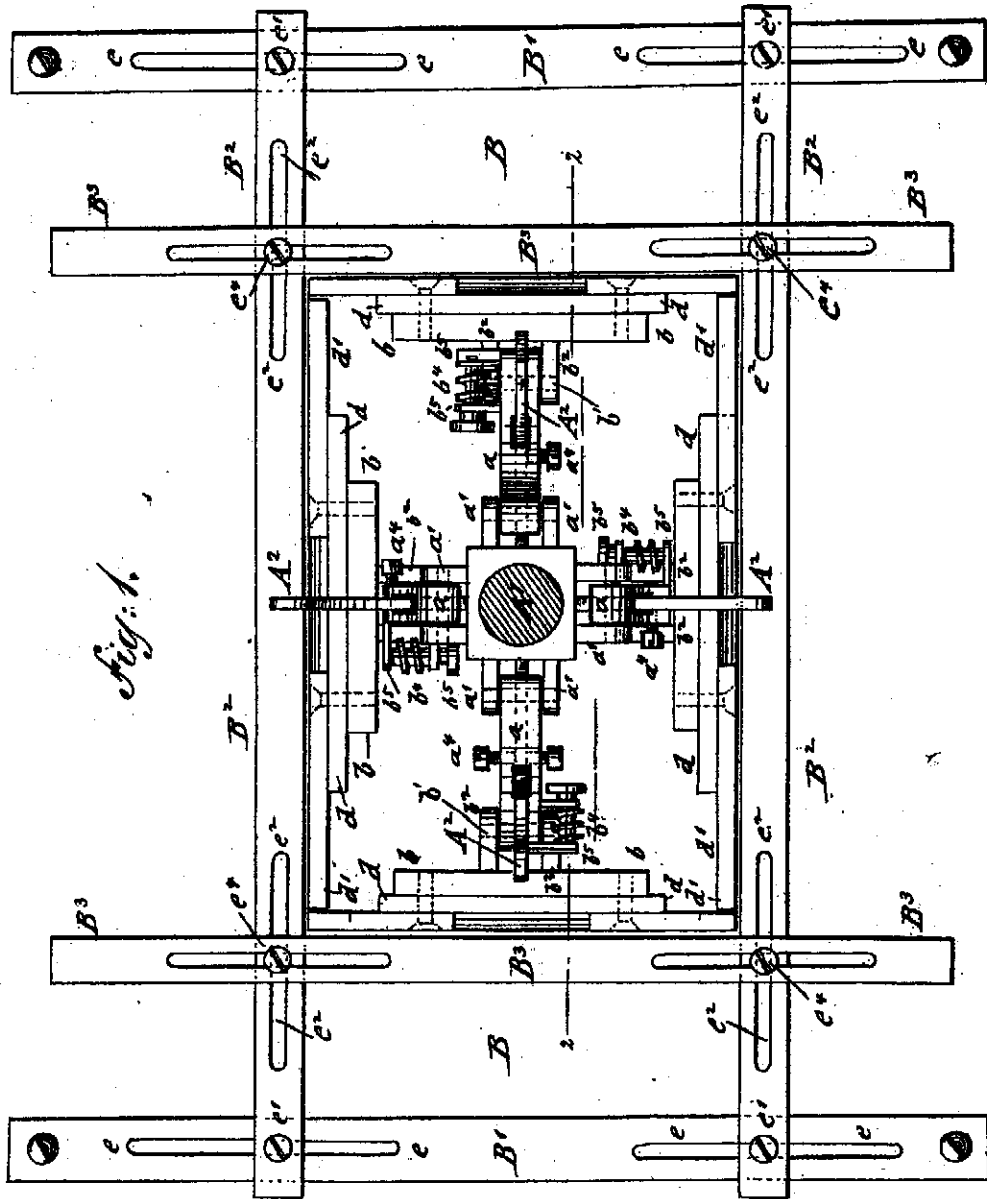


Fig. 1.

WITNESSES:

Marion Hall
Charles Schroeder.

INVENTORS

Joseph Corbett
and Edwin R. Corbett

BY

James R. Rogers

ATTORNEYS.