

UNITED STATES PATENT OFFICE.

ERNST FISCHER, OF BARMEN, GERMANY.

PAPER-BOX FOLDING AND GLUING MACHINE.

No. 800,731.

Specification of Letters Patent.

Patented Oct. 3, 1905.

Application filed November 25, 1903. Serial No. 182,665.

To all whom it may concern:

Be it known that I, ERNST FISCHER, a subject of the Emperor of Germany, residing at 3 Werterhofstrasse, in the city of Barmen, Rhenish Prussia, Empire of Germany, have invented a new and useful Improvement in Paper-Box Folding and Gluing Machines, of which the following is a specification.

My invention relates to stamps for use in paper-box folding-machines of any known construction; and it relates to a special construction of the stamp according to which the same is provided with movable operative dies or surfaces that are at the proper time correspondingly moved.

The devices forming the subject of the present application are to be used in the machine covered in Patent No. 784,147, dated March 7, 1905.

Hitherto the form of the box to be folded and in using the old stamps the disadvantage occurred that the box so tightly surrounded the stamp that it could not be removed therefrom and much waste was the result. In order to avoid this drawback, I construct my stamp, as said before, with movable dies, which during the folding action are rigidly secured in place and which are loosened as soon as the folding operation is finished. The stamp being thus diminished in size allows then the boxes to be easily removed.

My invention will be more fully understood by means of the accompanying drawings, on which—

Figure 1 shows the stamps in a vertical view. Fig. 2 is a similar view. Fig. 3 is a vertical section taken at right angle on line II II of Fig. 1. Fig. 4 is a horizontal section along line I I of Fig. 1. Fig. 5 is a side view.

The stamp consists, essentially, of a bar *a*, which is vertically reciprocated in any convenient manner. The rear or acting part *b* of the stamp carries two lateral dies *d*, which are linked at one end to the part *b* by bolts *c* and the other ends of which are pivotally connected with rods *f*, that are guided in the middle portion of *b*, as shown. This rod *f* has a pivot *k*, which is coupled to a part of the machine, imparting to said rod a raising and lowering movement. The latter effects that the dies are spread asunder, Fig. 2, and they are kept in this position during the folding operation. As soon as the folding has taken place the rod *f* is raised, causing the dies *d* to be turned round their pivots *c*, so that now the box embracing the stamp is loosened and may be easily removed therefrom. This position of the dies will be understood from Fig. 1.

Instead of two dies there may be also only one or more than two, according to the shape and size of the box.

b' is a plate which allows disconnection of the stamp.

What I desire to secure by Letters Patent is—

In a stamp for paper-box folding and gluing machines the combination of a reciprocated bar, a plate *b* extending from said bar, dies *d* pivotally secured to said bar, a rod *f* guided on said extended plate and reciprocated thereon, arms *e* pivotally connecting rod *f* and dies and a covering-plate *b'* for the purpose described and set forth.

ERNST FISCHER.

Witnesses:

OTTO KÖNIG,

J. A. RITTERHAUS.