(Model.)

G. H. PERKINS & W. McNAUGHT.

Blank-Guard for Die-Presses.

No. 227,829. **Patented May 18, 1880.**

Fig. 1.

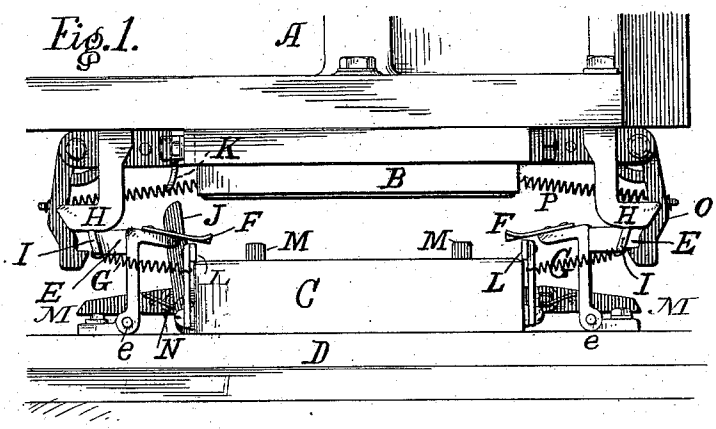


Fig. 2.

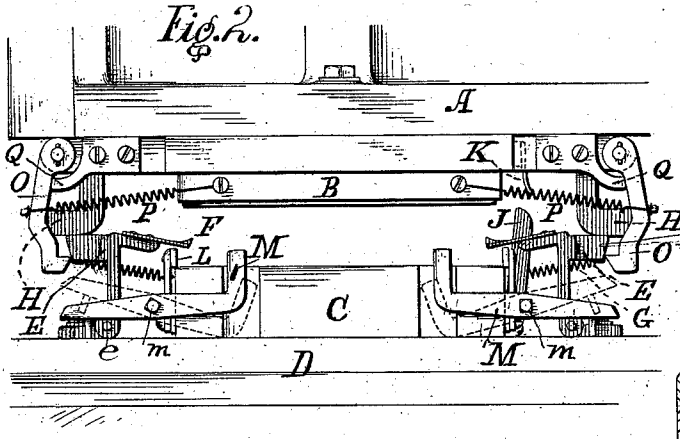


Fig. 3.

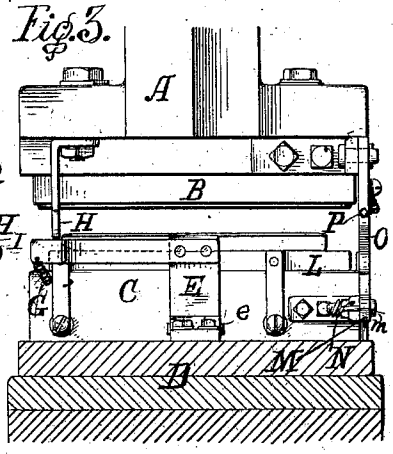
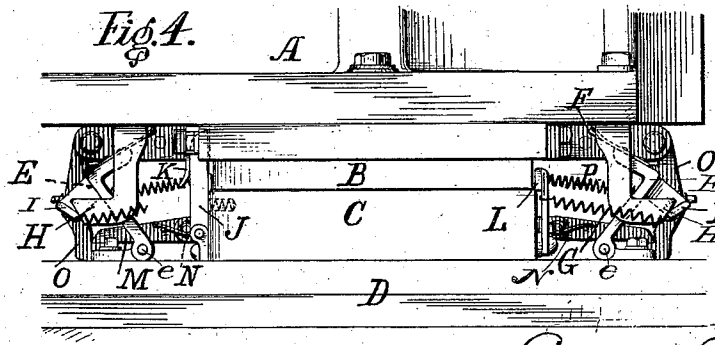


Fig. 4.



Attests,

John Dalley Jr.

John K. Rupertus.

Inventor,

George H. Perkins
William McNaught
By their Attorneys,
F. C. Strawbridge,
Bonsall Taylor.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE H. PERKINS AND WILLIAM McNAUGHT, OF PHILADELPHIA, PENNSYLVANIA; SAID McNAUGHT ASSIGNOR TO SAID PERKINS.

BLANK-GUARD FOR DIE-PRESSES.

SPECIFICATION forming part of Letters Patent No. 227,829, dated May 18, 1880.

Application filed March 19, 1880. (Model.)

To all whom it may concern:

Be it known that we, GEORGE H. PERKINS and WILLIAM McNAUGHT, both of Philadelphia, Pennsylvania, have invented an Improvement in Blank-Guards for Die-Presses, of which the following is a specification, reference being made to the accompanying drawings, forming part hereof, in which—

Figure 1 is a front elevation of so much of the striking and bed dies of a press as are necessary to illustrate the application of our invention, the striking-die being elevated; Fig. 2, a rear elevation of the same; Fig. 3, a side elevation of the same; and Fig. 4, a front elevation similar to that of Fig. 1, but showing the position of the parts when the striking-die has descended and is down.

Our invention relates to presses which are employed in the stamping, embossing, forming, or otherwise shaping of sheet metal; and its object is the insuring of quick insertion of the blanks, the prevention of such carelessness in the operator as would cause the blank to run over the tops of the gages, and the retention of warped plates within the gages.

In the drawings, A represents the plunger of the striking-die, and B the striking-die proper.

C is the bed-die, upon which the blank is fed; and D, the frame-work supporting the bed-die.

E E are blank-guards, in the present instance rocking upon pivots *e* upon the frame. They are located at both sides of the bed-die, and are of any fit construction, that represented being a convenient form. They are provided with laterally-extending webs F, which overhang the blank and constitute the guards or retaining devices proper.

Connected with both the guards and some fixed portion of the frame are spiral or other springs G, which, when the striking-die is elevated, serve to retain the guards in the position shown in Fig. 1—that is to say, in such position that their webs overhang the bed-die and block the path of the striking-die.

H H are cam-faced deflectors connected with the striking-die, and rising and falling with the latter. In their descent they encounter ledges I upon the guards, and thereby deflect away the guards out of the path of the striking-die and into the position shown in Fig. 4, expanding in so doing the spiral springs.

The parts being in the position indicated in Fig. 1, the operator feeds the blank upon the bed, the webs of the guards and the stop-gages M insuring its reception in proper position. As the striking-die is caused to descend the deflectors H throw aside the guards, so that their webs clear the path of the striking-die. As the die ascends the guards spring back.

M are adjustable stop-gages, pivoted at *m* to the back of the bed-die and controlled by a pivot-spring, N, counterpoise, or other device in such manner that when the die is elevated they occupy the position represented in Figs. 1 and 2—that is to say, with their stop extremities above the plane of the bed.

O are hooks pivoted to the back of the striking-die in line above with the stop-gages. They are held by springs P against stops Q in the position of parts shown in Figs. 1 and 2. As the die descends, the hooks encountering them slip over the extremities of the stop-gages and hook beneath the same. As the die ascends the hooks therefore lift and tilt the stop-gages into the position shown in dotted lines in Fig. 2 before they disengage, whereby the formed blank can slide out at the rear opening of the press before the stop-gages set themselves for the succeeding blank.

Various modified constructions may be resorted to in the formation, arrangement, and method of operation of the guards and stop-gages, that represented being merely one of many possible and convenient forms.

We have represented at J K an adjustable side gage for setting up the blanks against a fixed gage, L. The device, however, may be omitted.

The adjusting-gage is the invention of George H. Perkins, and forms the subject of another application for Letters Patent filed contemporaneously with this.

The side gage is shown in the present instance merely to indicate a convenient manner of use conjointly with the guards and stop-gage.

Having thus described our invention, we

claim and desire to secure by Letters Patent of the United States—

1. In a die-press, the combination, with the bed-die, of overhanging guards designed to insure proper placing and retention of the blank, and adapted to be operated by means of the striking-die, so as to be thrown clear of its path to permit its action, substantially as described.

2. The combination, in a die-press, of the guards, the stop-gages, and the side gage, constructed and operating substantially as set forth.

In testimony whereof we have hereunto signed our names this 10th day of February, A. D. 1880.

GEORGE H. PERKINS.
WILLIAM McNAUGHT.

In presence of—
J. BONSALL TAYLOR,
C. B. TAYLOR.