March 23, 1943. G. H. DAWSON 2,314,690

PUNCH

Filed June 9, 1941 2 Sheets-Sheet 1

Fig. 1

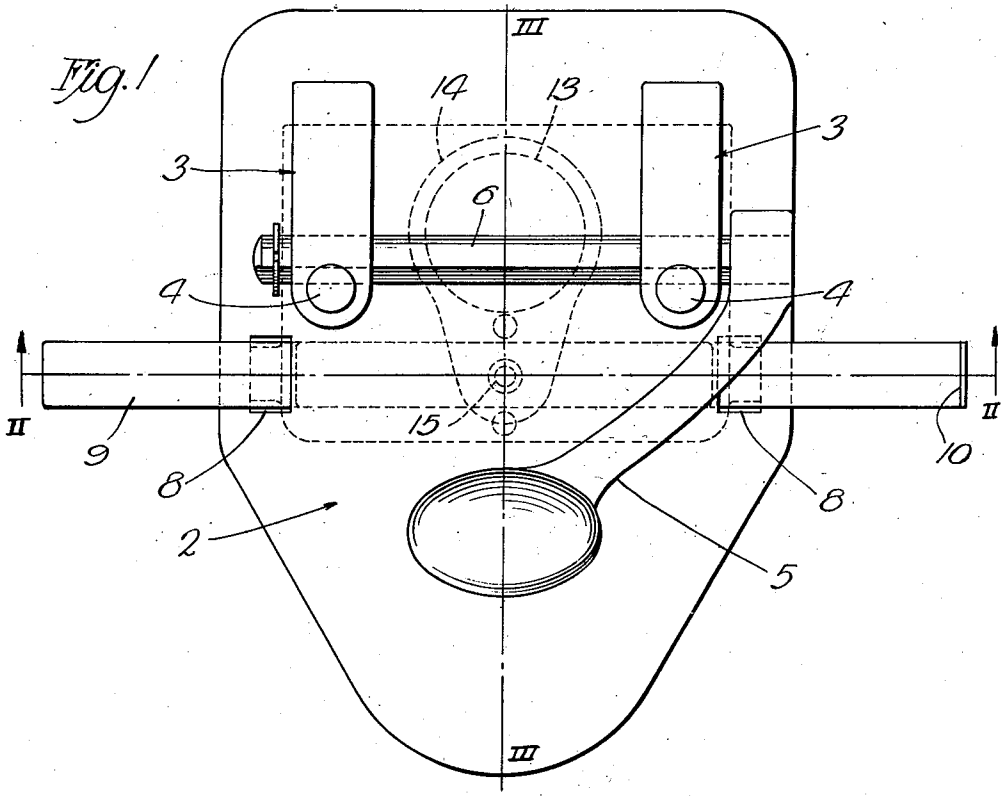
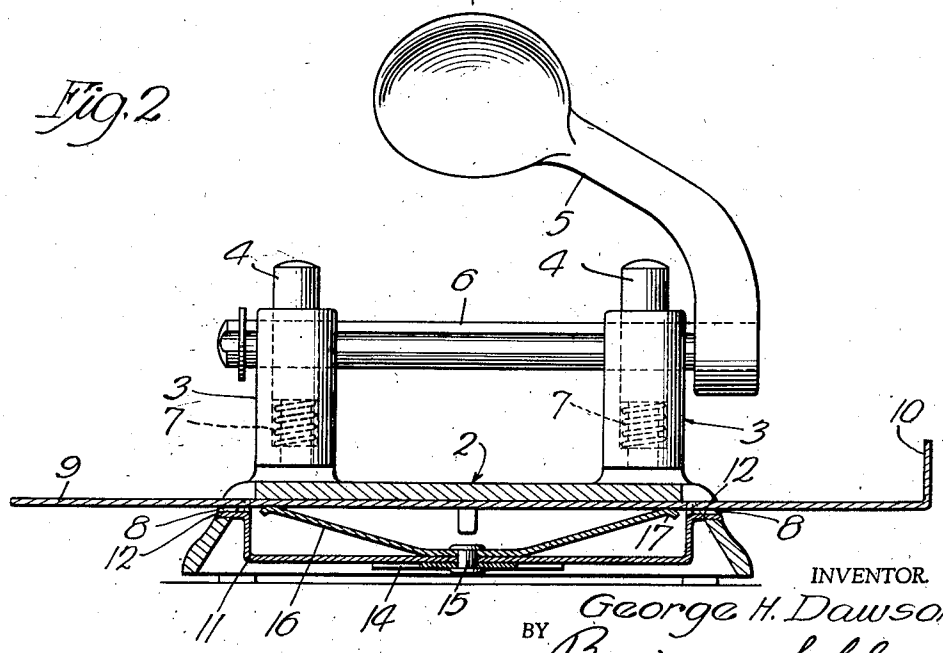


Fig. 2



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Fig. 3

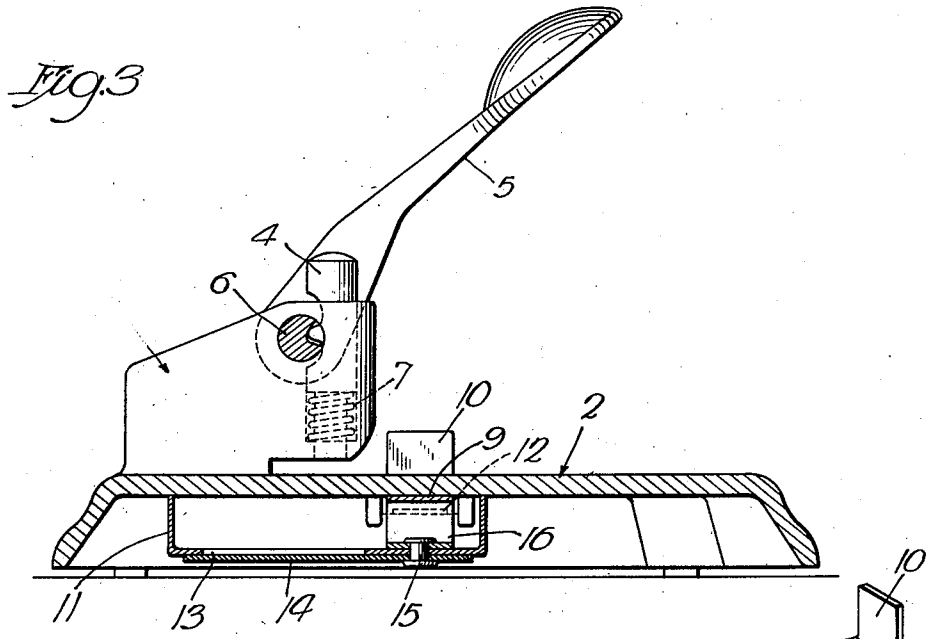
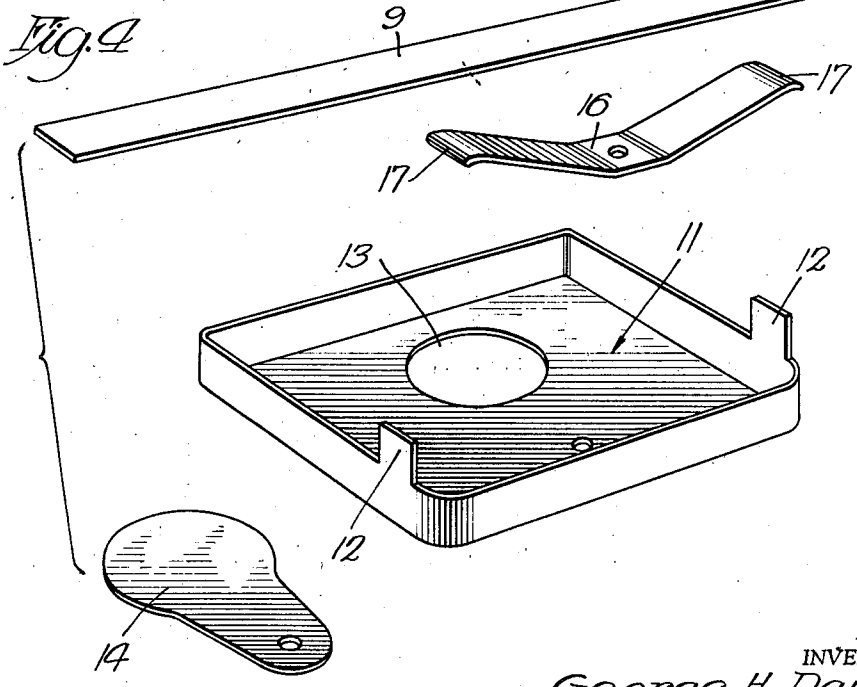


Fig. 4



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Patented Mar. 23, 1943

2,314,690

UNITED STATES PATENT OFFICE

2,314,690

PUNCH

George H. Dawson, Chicago, Ill., assignor to Wilson-Jones Company, Chicago, Ill., a corporation of Massachusetts

Application June 9, 1941, Serial No. 397.281

2 Claims. (Cl. 164—91)

This invention relates to a punch for perforating loose sheets of paper or similar material and more particularly to a chip pan and a gauge support for the punch.

It is an object of this invention to provide a chip pan that may be permanently secured to the base member of the punch. It is a further object of this invention to provide the chip pan with a gauge support secured to the chip pan so that the gauge support and chip pan may be assembled with the punch as a unit.

Other objects of the invention will become apparent upon reading the following description, taken in conjunction with the accompanying drawings, in which:

Figure 1 is a top plan view of a punch embodying the invention;

Figure 2 is a cross sectional view taken along the line II—II of Figure 1;

Figure 3 is a cross sectional view taken along the line III—III of Figure 1; and

Figure 4 is a perspective view of the chip pan, gauge support, and gauge in disassembled position.

In the drawings, the reference numeral 2 indicates a punch base provided with a plurality of punch heads 3. In the embodiment illustrated, the punch heads 3 are integral with the punch base, but it is obvious that they may be secured to the punch base in any suitable manner. A punching pin 4 is mounted in each punch head, and these punching pins are operatively connected to a lever or handle 5 by means of a rod 6. The handle 5 is operable to depress the punching pins simultaneously. Each punching pin is provided with a coil spring 7 operable to retract the punching pins upon release of the handle 5.

The base member 2 is provided with a pair of aligned apertures 8 through which a gauge 9 is inserted. The gauge 9 is provided with one turned up end 10 to form an abutment against which the sheets to be punched may be placed.

A chip pan 11 fits under the base 2 and is provided with a pair of ears 12 which are bent into the apertures 8 to secure the chip pan permanently to the base. The chip pan is provided with a large aperture 13 which is normally closed by means of the closure 14 pivoted to the chip pan, as indicated at 15. It is obvious that any suitable closure member may be substituted for the member 14.

A flat spring 16 is riveted or welded inside the chip pan 11 before the chip pan is mounted in the base member. The ends 17 of the spring are adapted to engage the under surface of the gauge 9 to support the gauge and to frictionally hold it in any predetermined position. The frictional contact of the spring against the gauge is not sufficient to prevent sliding movement of the gauge when it is desired to change its setting, but is sufficient to prevent inadvertent sliding movement.

Although I have described one embodiment of my invention in detail, it will be understood that the description thereof is illustrative rather than restrictive, and many details may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I do not desire to be restricted to the exact details of construction described except as limited by the appended claims.

I claim:

1. In a punch, a base member having a pair of aligned apertures, a gauge passing through said apertures, a chip pan secured to said base member, and a flat spring permanently secured at its middle portion to said chip pan, the ends of said flat spring being aligned with said apertures and engaging said gauge to exert frictional force against said gauge.

2. In a punch, a base member having a pair of aligned apertures, a chip pan secured to said base member by means of ears engaging said apertures, a gauge slidably mounted in said apertures, and a spring secured to said chip pan and engaging said gauge to maintain said gauge in predetermined position.

GEORGE H. DAWSON.