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PATENTED APR. 7, 1903.

W. M. ROCKSTROH.  
CUTTING AND STAMPING APPARATUS.

APPLICATION FILED DEC. 3, 1901.

NO MODEL.

2 SHEETS—SHEET 1.

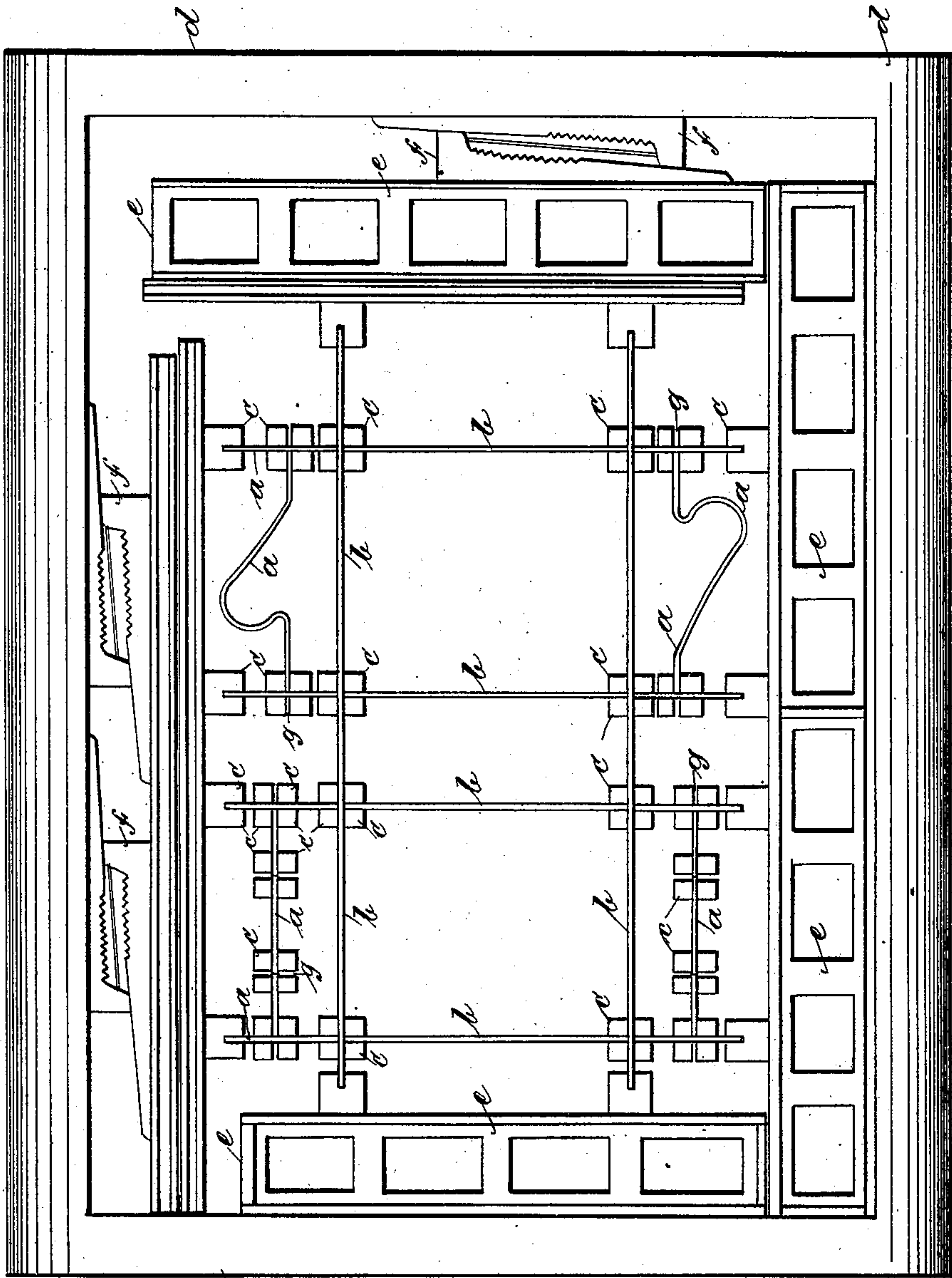


Fig. 1.

Witnesses

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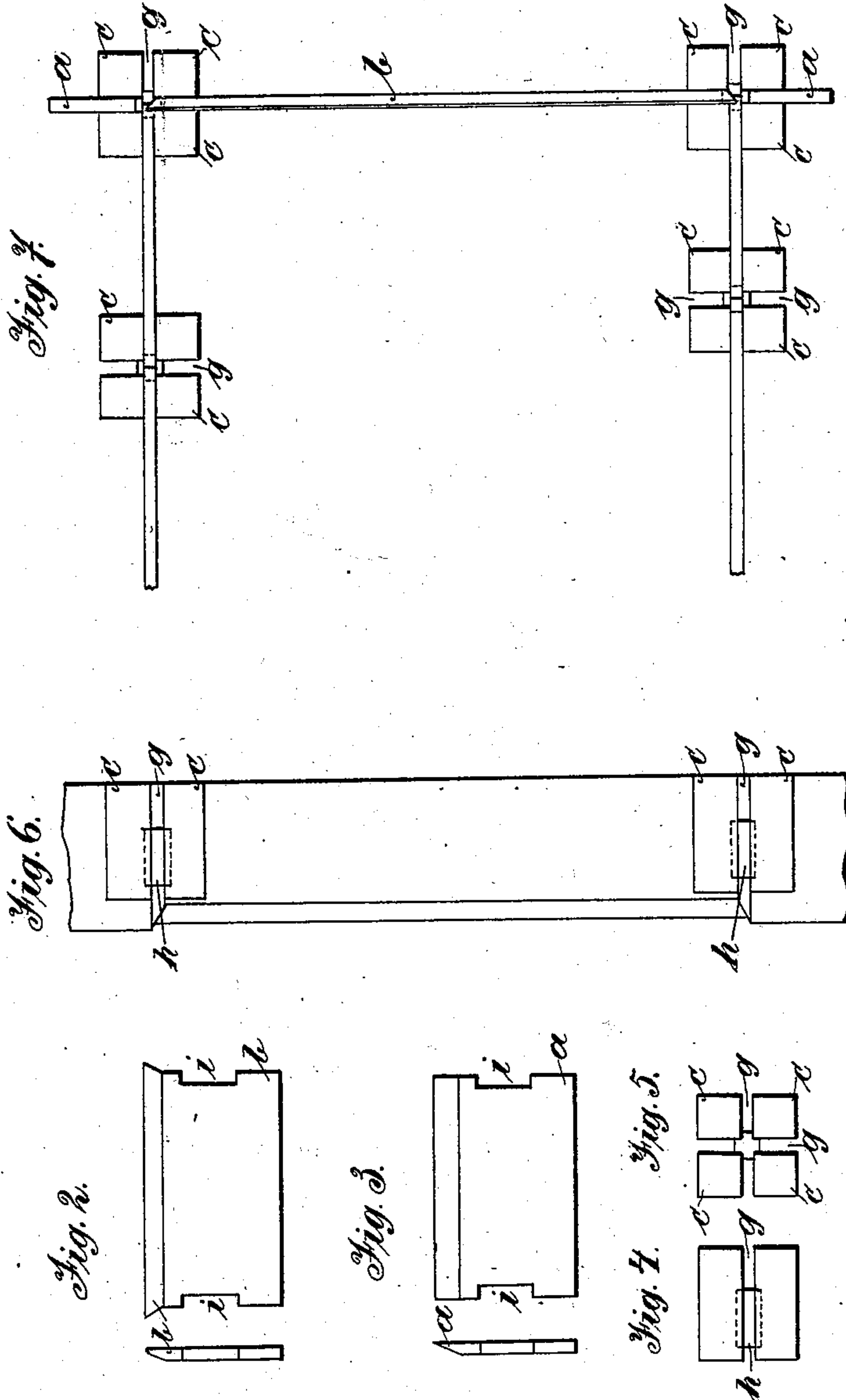
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

WILHELM MAX ROCKSTROH, OF KLEIN-SEDLITZ, NEAR PIRNA, GERMANY.

## CUTTING AND STAMPING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 724,614, dated April 7, 1903.

Application filed December 3, 1901. Serial No. 84,575. (No model.)

*To all whom it may concern:*

Be it known that I, WILHELM MAX ROCKSTROH, factory manager, a subject of the Emperor of Germany, residing at Klein-Sedlitz, near Pirna, in the German Empire, have invented certain new and useful Improvements in Cutting and Stamping Apparatus for Use in the Manufacture of Boxes and the Like, of which the following is a complete specification.

As is well known, in the manufacture of folding boxes and the like by means of platen printing-presses compound dies are used which are composed of several cutting and stamping or bending bars (hereinafter referred to as "stamping-bars") provided with various closing and filling devices, so as to produce the form desired. The combination of the cutting and stamping bars has been produced hitherto by connecting the several parts by dowels and inserting intermediate plates. This method of joining the parts has, however, the disadvantage that the several parts are liable to be displaced in relation to one another, as the connecting-pins are circular, and consequently do not insure that the parts resting upon them will remain fixed in their proper position. To make these pins angular is, however, impracticable, because, on the one hand, the manufacture would be expensive and difficult, and, on the other hand, the construction would have to be very complicated to enable a satisfactory operation of the die to be effected.

The before-mentioned disadvantages are obviated according to the present invention by means of small junction-blocks which are provided with slots and also with central cores that engage with the stamping and cutting bars by means of notches or recesses with which the said bars are provided. By these means it is possible to produce very quickly the desired shape of die without its being necessary to use any filling material, while at the same time relative movement of the parts connected together is obviated. The manufacture of the bars is also extremely simple, as will be seen from the following description.

Figure 1 of the accompanying drawings shows in plan one example of a complete stamping-die according to this invention.

Fig. 2 shows a stamping-bar in cross-section and in longitudinal elevation. Fig. 3 shows a cutting-bar in cross-section and in elevation. Fig. 4 is a side elevation of a junction-block. Fig. 5 is a plan thereof; Fig. 6, a side elevation of an end portion, and Fig. 7 a plan thereof.

Die-shaped steel blocks *c* are used for connecting the several cutting-bars *a* and stamping-bars *b*, Figs. 1, 2, and 3. The parts to be connected together are placed in the frame *d*, the intervals are filled by suitable pieces *e*, and the whole is held in proper position by wedges *f*, that can be easily released or fixed. Each block *c* (see Figs. 4 and 5) is provided on each side with a slot *g*, corresponding in width to the thickness of the bars and so formed that a core *h* remains in the center of the block. The cores *h* serve as bearings for the stamping-bars *b* and the cutting-bars *a*, which are provided with corresponding notches or recesses *i*, adapted to engage with the cores *h*. The notches or recesses *i* of the cutting and stamping bars are limited in depth to half the thickness, at the most, of the cores *h*, so that each core *h* can receive a fork-shaped end of one of these bars on each of its four sides. (See Figs. 1 and 7.) As the notched or recessed connecting portions of the stamping and cutting bars extend into the slots *g* of the block *c* and embrace the core *h* after the manner of a fork, it is impossible for the said stamping and cutting bars to become displaced relatively to one another. Furthermore, the several bars and blocks support one another, so that the several parts are constrained to remain in the position in which they are placed and do not become displaced even during the stamping operation.

It is obvious that any desired bars, whether cutting or stamping bars, of any desired shapes and of various lengths can be connected together by such means. The placing together of the several bars is very quickly effected and the production of the notches or recesses *i* is not difficult.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. Devices for use as described comprising



steel connecting-blocks, each provided with intersecting slots  $g$ , so positioned as to leave a central core  $h$  in each block, in combination with bars arranged perpendicularly to each other, the thickness of which bars corresponds with that of the slots in the connecting-blocks, said bars fitting snugly in the said slots and being provided with recesses or notches  $i$  engaging over the cores of the blocks in the manner set forth and for the purpose specified.

2. Devices for use as described comprising steel connecting-blocks, each provided with intersecting slots  $g$ , so positioned as to leave a central core  $h$  in each block, in combination with bars arranged perpendicularly to each other, the thickness of which bars corresponds with that of the slots in the connecting-blocks, said bars fitting snugly in the said slots and being provided with notches or recesses  $i$  engaging over the cores of the blocks, the said notches being limited in depth to

not more than one-half the thickness of the cores  $h$ .

3. Devices for use as described comprising steel connecting-blocks, each provided with intersecting slots  $g$ , so positioned as to leave a central core  $h$  in each block, in combination with bars arranged perpendicularly to each other, the thickness of which bars corresponds with that of the slots in the connecting-blocks, said bars fitting snugly in the said slots and being provided with recesses or notches  $i$  engaging over the cores of the blocks, a frame, and means for detachably securing the bars and connecting-blocks in position within the frame.

In witness whereof I have hereunto set my hand in presence of two witnesses.

WILHELM MAX ROCKSTROH.

Witnesses:

HERNANDO DE SOTO,  
PAUL ARRAS.