

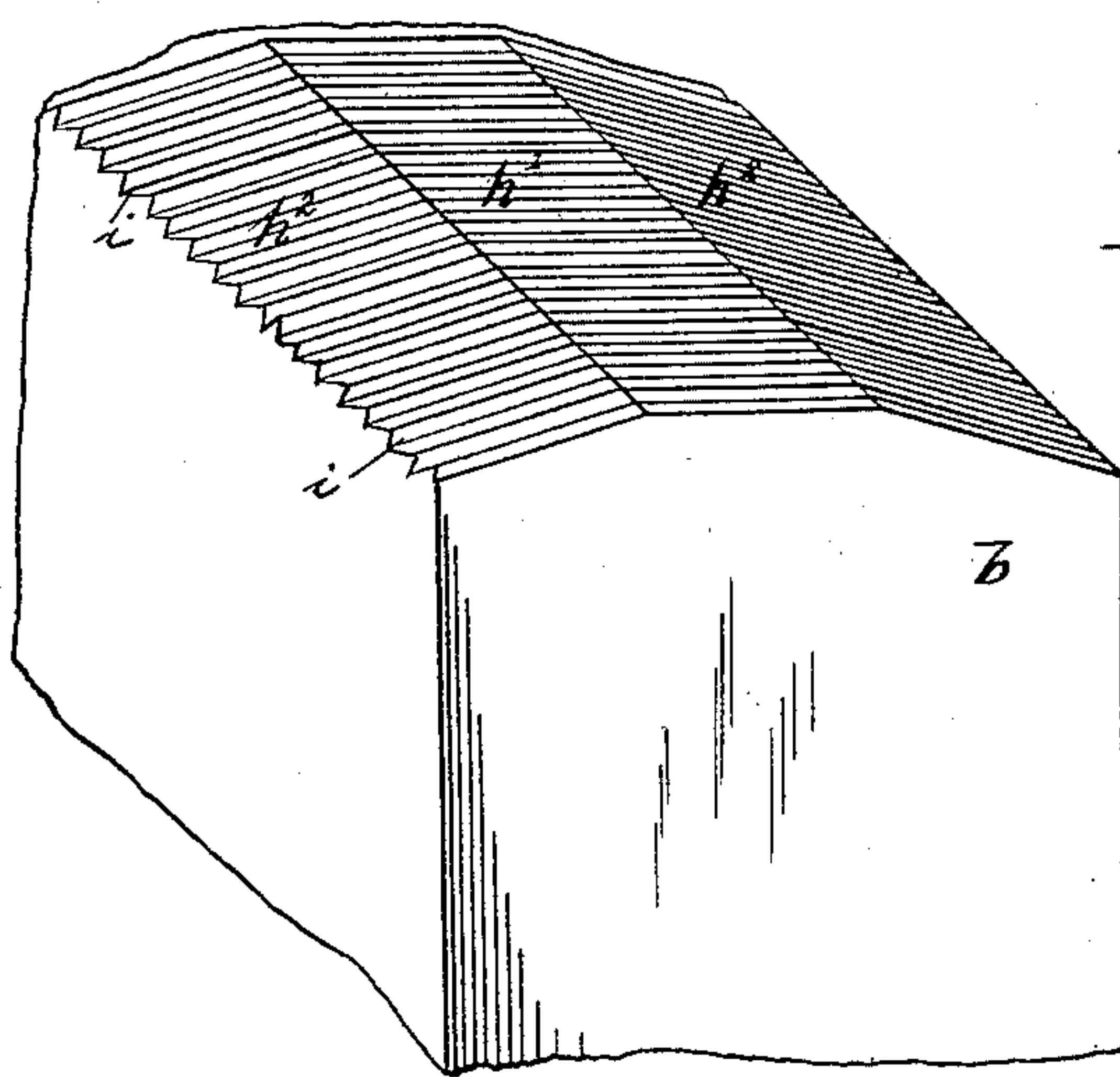
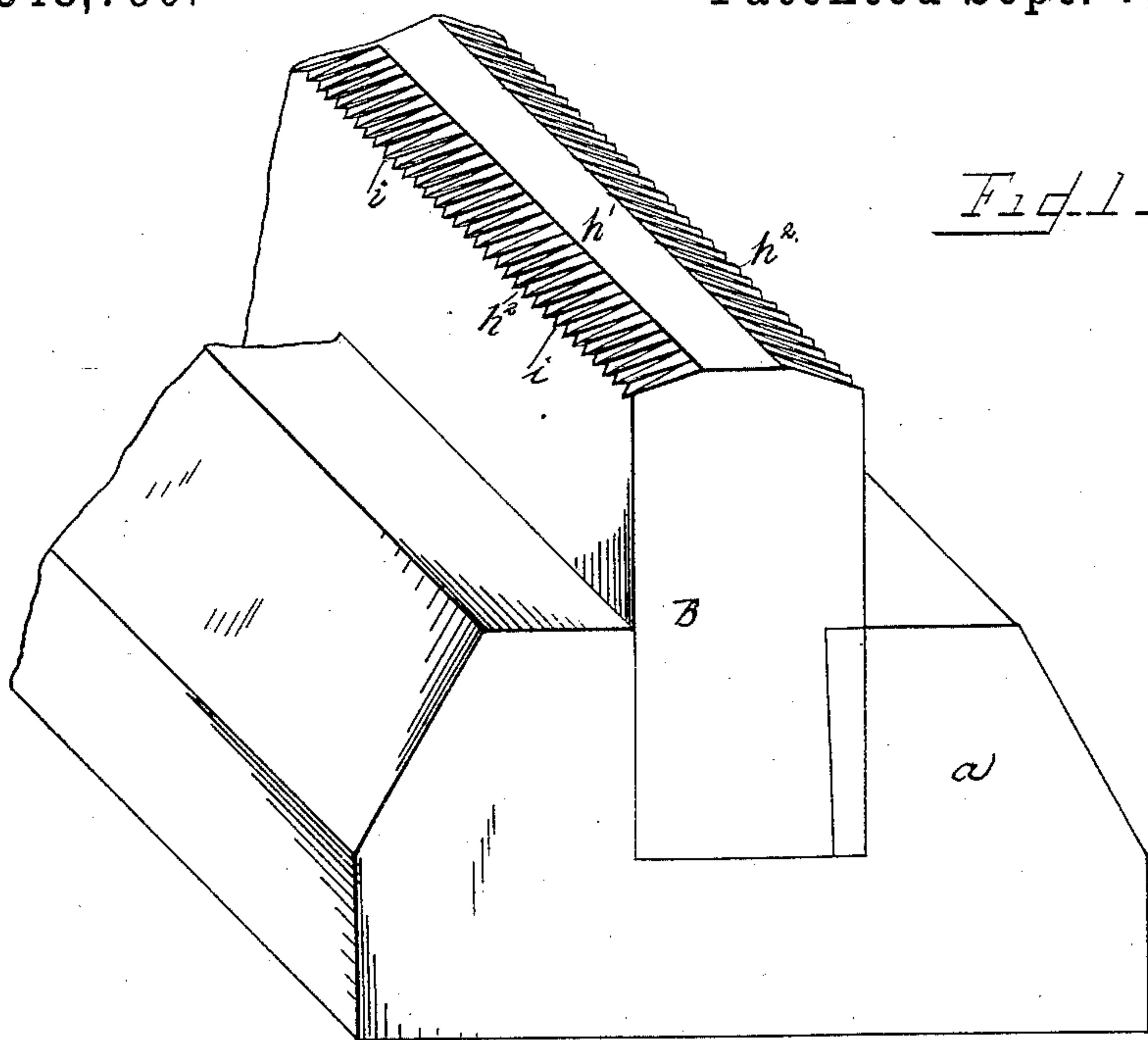
(No Model.)

G. F. SIMONDS.

DIES FOR MAKING ROLLED FORGINGS.

No. 348,790.

Patented Sept. 7, 1886.



Witnesses

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GEORGE F. SIMONDS, OF FITCHBURG, MASSACHUSETTS.

DIE FOR MAKING ROLLED FORGINGS.

SPECIFICATION forming part of Letters Patent No. 348,790, dated September 7, 1886.

Application filed April 8, 1886. Serial No. 193,254. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. SIMONDS, of Fitchburg, in the county of Worcester and State of Massachusetts, have invented new and Improved Dies to be Used in Machines for Making Rolled Forgings, especially heavy work; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a portion of a die embedded in its holder or socket. Fig. 2 is an enlarged view of a portion of the die removed from its holder, and showing a modification of the serrations or teeth on the faces.

My invention relates to dies to be used in conjunction with the forging-machine patented by me June 9, 1885, No. 319,752, and has for its object to provide a die especially adapted for the forging of heavy work.

My invention consists in the peculiar formation of the working-faces of the die and the grooves for insuring the proper rotation of the work, all of which will be hereinafter described, and specifically pointed out in the claims.

In order that those skilled in the art may make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the said drawings, *a* is the platen, and *b* the die proper. The working-faces of this die consist of three parallelograms, *h' h''*, the central one, *h'*, lying in a horizontal plane, and

the other two parallelogram faces, *h'' h''*, falling away from the central horizontal parallelogram, the planes intersecting along the edges. The parallelograms *h''*, which have the pitch given them that may be desired, are provided with grooves or irregularities *i i*, so cut that they greatly deepen and widen from the center toward the outer lines of the die-faces. This gradual deepening and widening of the grooves allows the two edges of the die-face to heavily engage the heated blank, while that portion which is close to the finishing-face is not so indented as to offer any difficulty in erasing the groove-marks.

In Fig. 2 I have shown a modification of this die-face, wherein grooves of a lighter description are passed across the horizontal parallelogram *h'* of the face, to be used in instances when the work need not be smoothly finished on leaving the die.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Dies for machines for making rolled forgings having a central parallelogrammic face arranged between two parallelogrammic faces falling away from the central face, as set forth.

2. Dies for machines for making rolled forgings having cross-grooves deepening from a central longitudinal line in each direction toward the outer lines of the dies, substantially as described.

GEO. F. SIMONDS.

Witnesses.

G. E. DOWNE,
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