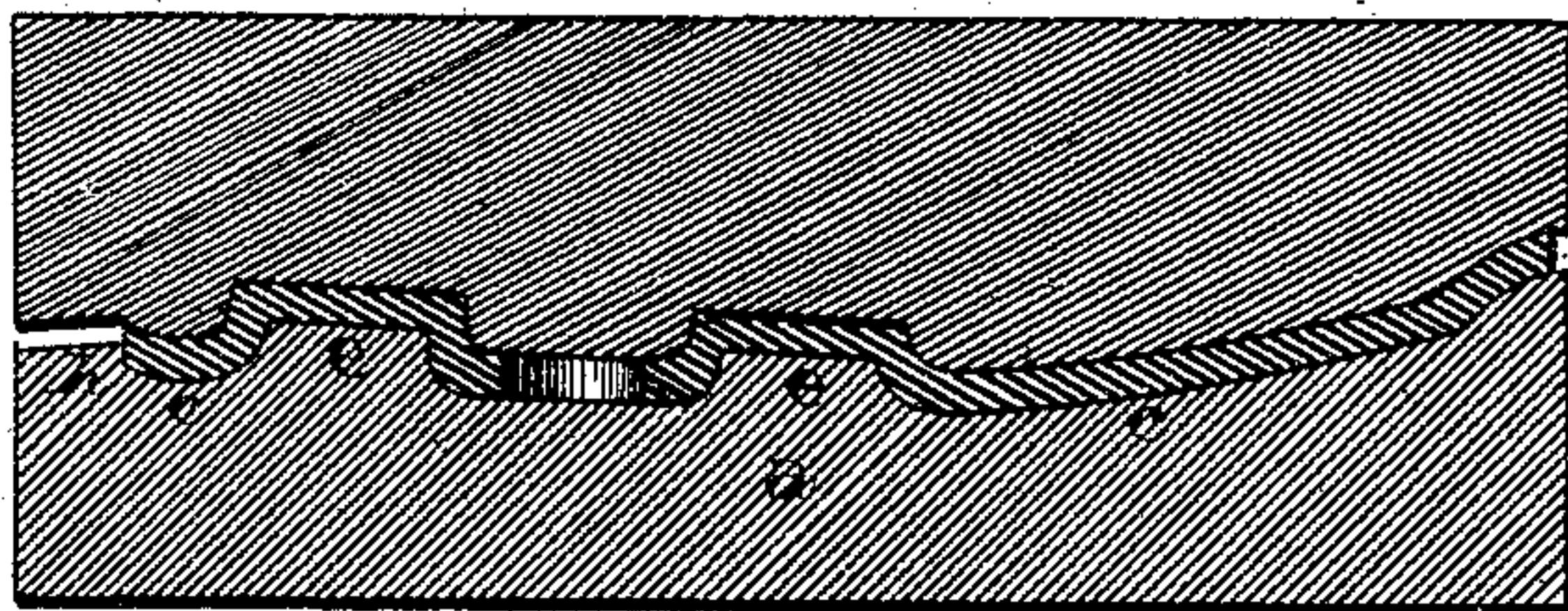


**C. H. THOMPSON.**  
**Dies for Forming Shovel-Blocks.**

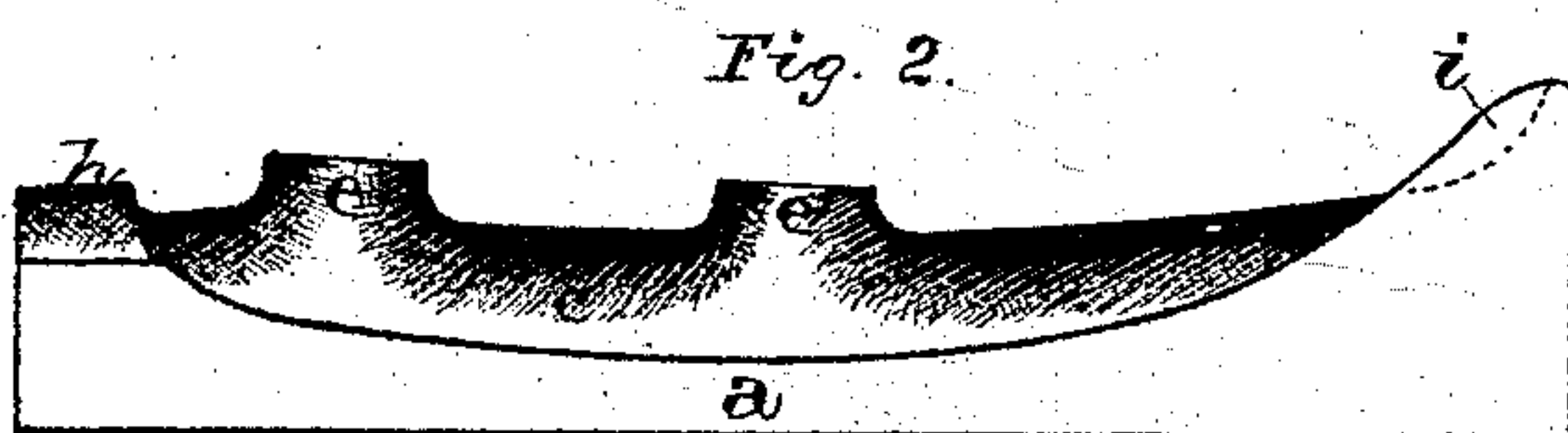
No. 152,580.

Patented June 30, 1874.

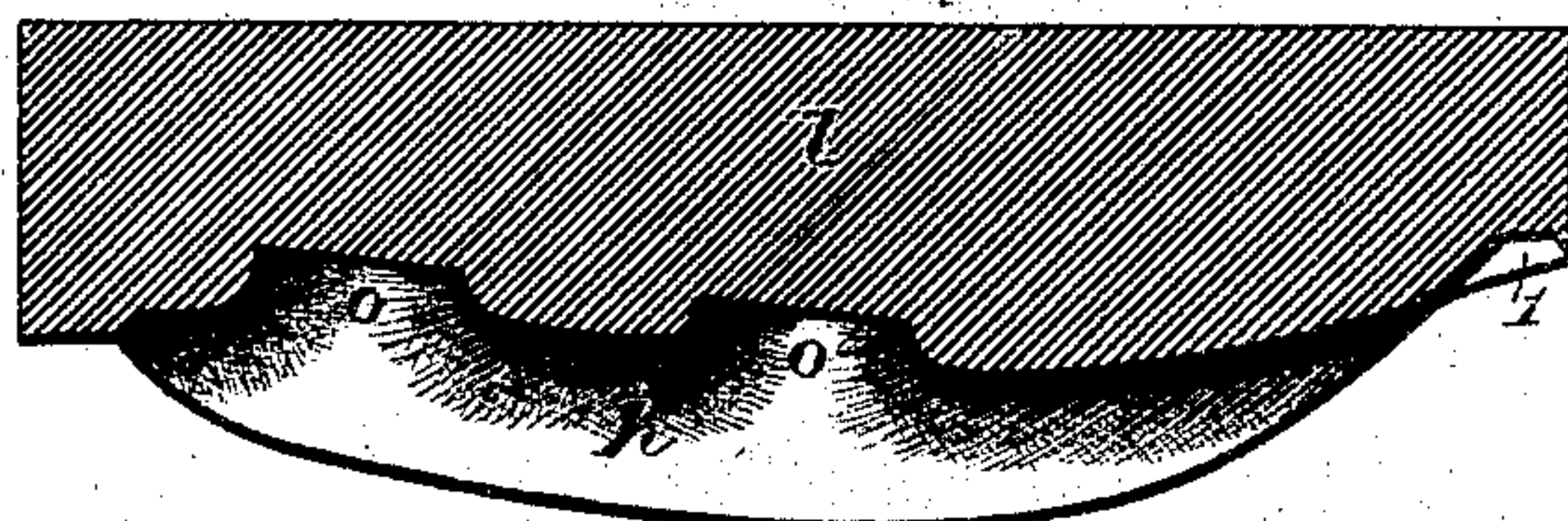
*Fig. 1.*



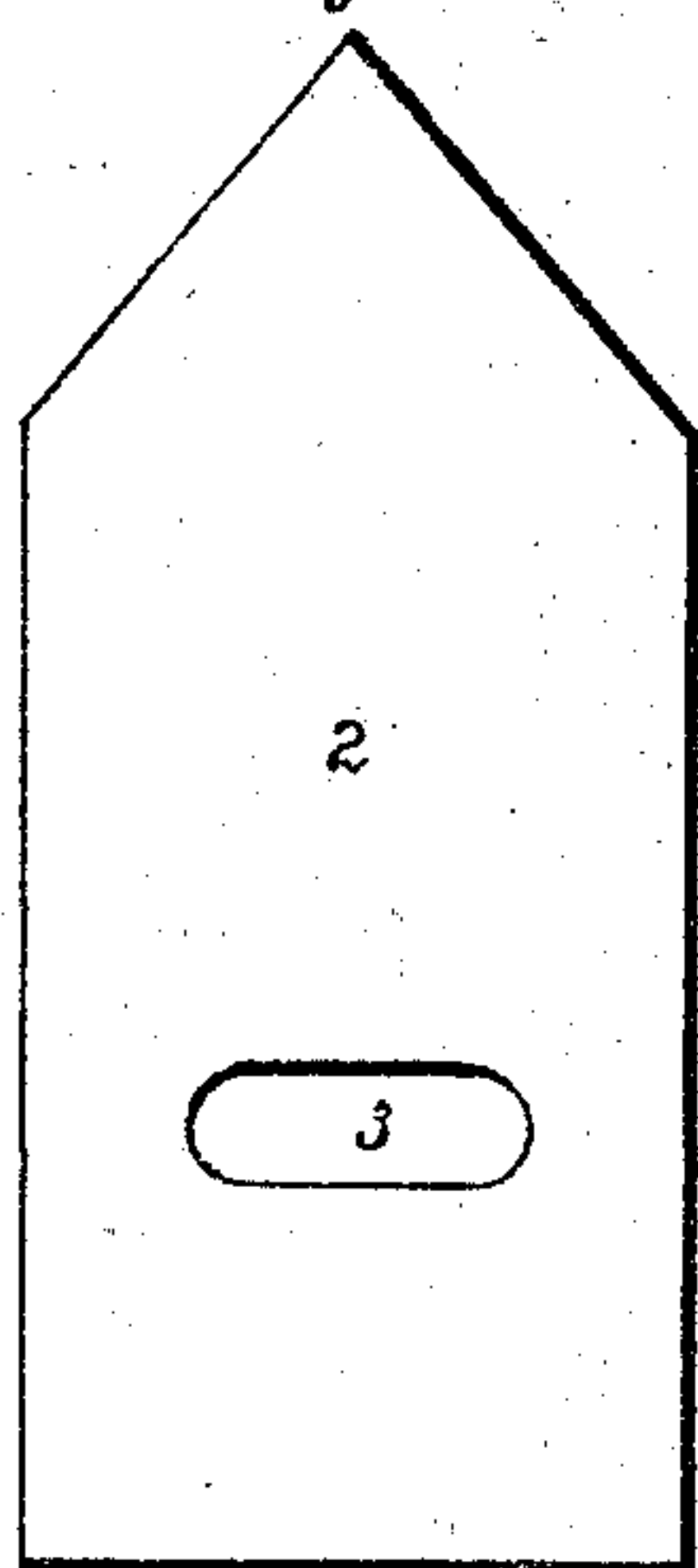
*Fig. 2.*



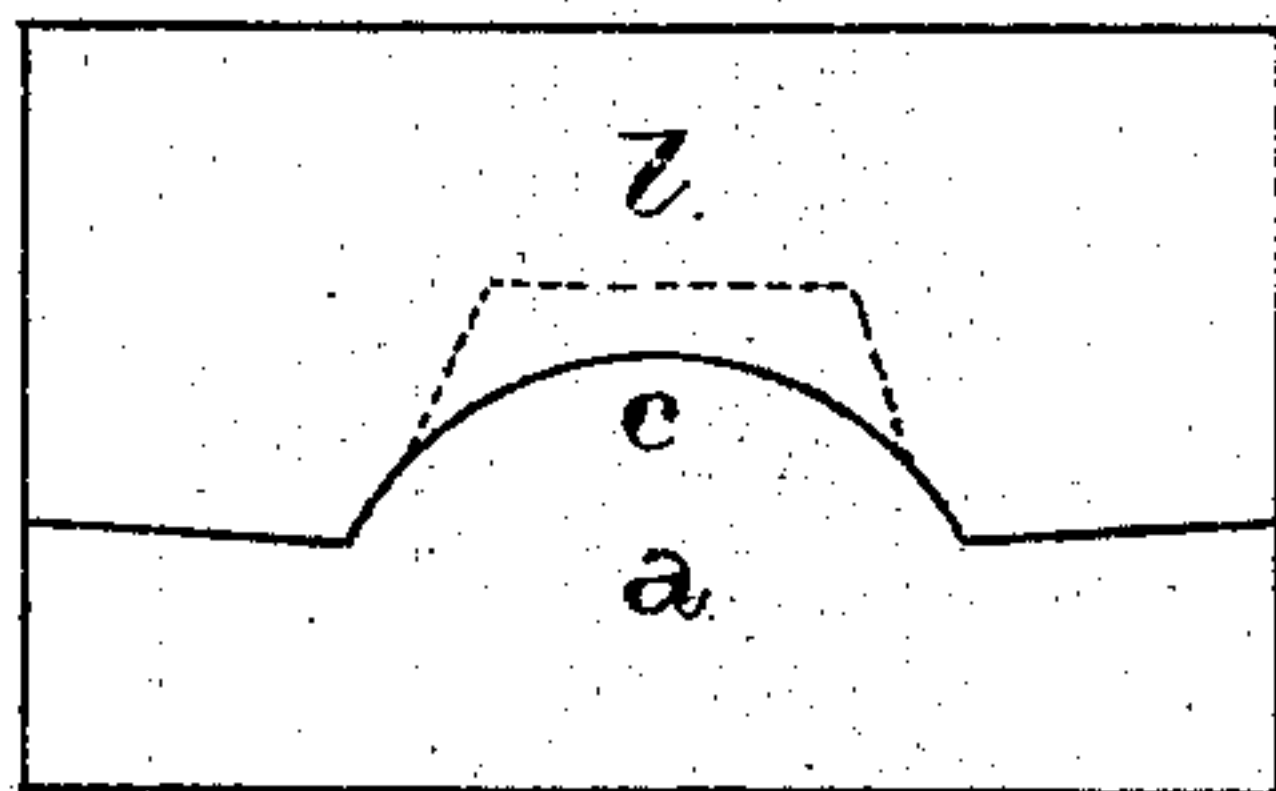
*Fig. 3.*



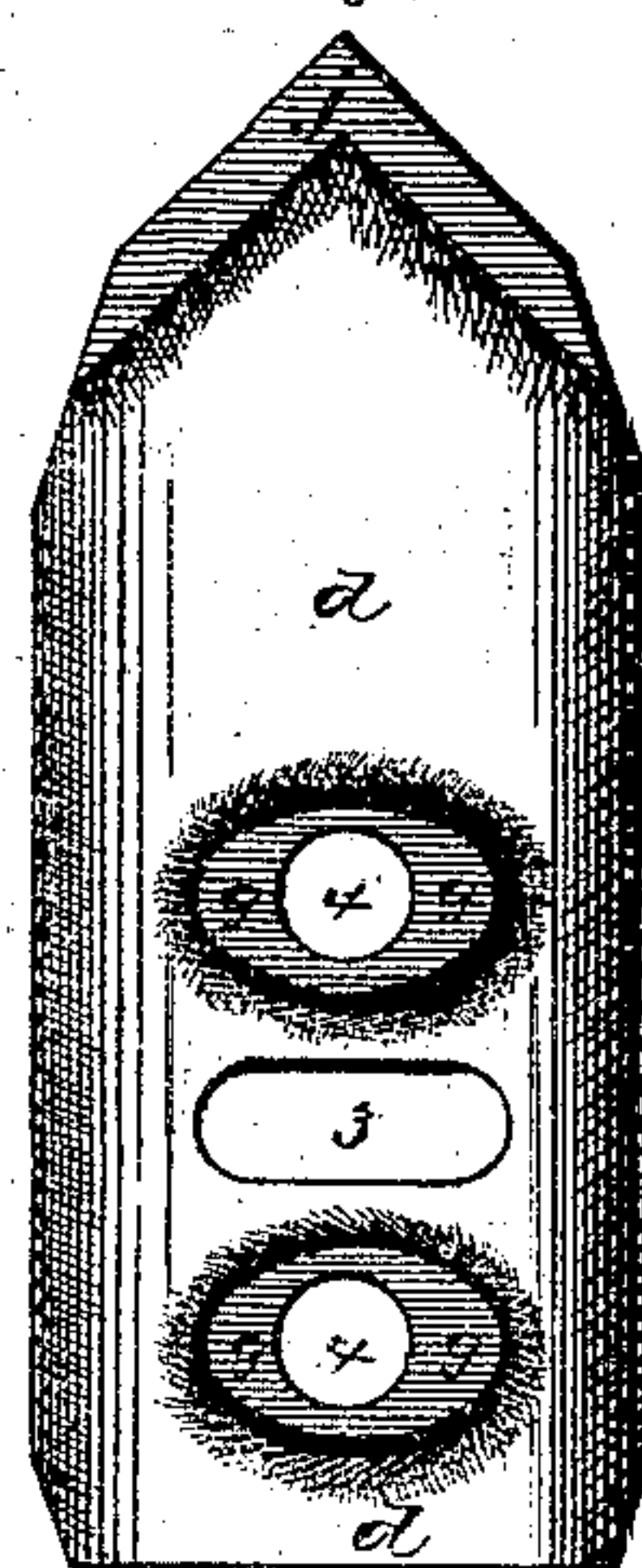
*Fig. 5.*



*Fig. 4.*



*Fig. 6.*



WITNESSES.

*J. W. Garner,*  
*F. B. Townsend.*

INVENTOR.

*C. H. Thompson*  
*per*  
*J. A. Lehmann, Atty.*



# UNITED STATES PATENT OFFICE.

CHARLES H. THOMPSON, OF MOLINE, ILLINOIS, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO JNO. VANLURANCE, OF SAME PLACE.

## IMPROVEMENT IN DIES FOR FORMING SHOVEL-BLOCKS.

Specification forming part of Letters Patent No. **152,580**, dated June 30, 1874; application filed  
April 6, 1874.

*To all whom it may concern :*

Be it known that I, CHARLES H. THOMPSON, of Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Manufacture of Shovel-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in the manufacture of shovel-blocks; and it consists in the construction of the dies by which the blocks are stamped, as will be more fully described hereafter.

The accompanying drawings represent my invention.

*a* represents the bed of the dies, which consists of a metal block having a convex ridge formed upon its top, and which is somewhat higher at one end than the other. From the top of the ridge *c*, upon which the shovel-blocks *d* are shaped, there are formed two projections, *e*, of suitable height and shape, which punch up the two bearing-surfaces *g* on the shovel-blocks, against which surfaces the cultivator-shovel rests. Upon the lower end of the block *a* is formed a stop, *h*, which regulates the position of the plate from which the shovel-block is to be stamped upon the die, while at the opposite end there is formed a suitable depression, *i*, in which the lower end of the shovel-block is turned slightly upward or outward and then flattened so as to form a

third bearing-surface, *j*, for the cultivator shovel. The upper part of the die *l* has a concave groove or depression, *n*, formed in its under side, which corresponds to the ridge *c*; two circular or other shaped cavities, *o*, which correspond to the punches *e*; and a depression, *l*, in which the bearing-surfaces *j* are formed. The shovel-blocks are formed from a blank, *2*, through which is punched a hole, *3*, for the bolt, by which the block is to be secured to the standard. This blank is heated to a welding-heat and then placed upon the block *a*, when, by a single stroke of the die *l*, the block is shaped. Bolt-holes *4* are then formed, and the block is complete.

Shovel-blocks have heretofore only been made by casting, and they have been found to be brittle and easily broken, and very expensive to manufacture. By stamping the blocks from wrought-iron I entirely overcome both of these objections.

Having thus described my invention, I claim—

Dies for forming shovel blocks of plate metal, comprehending a ridge, *c*, and corresponding groove *n*, and otherwise shaped so as to produce upon the block one or more bearing-surfaces, substantially as described.

In testimony that I claim the foregoing, I have hereunto set my hand this 28th day of March, 1874.

CHARLES H. THOMPSON.

Witnesses:

EUGENE LEWIS,  
JOHN VANLURANCE.