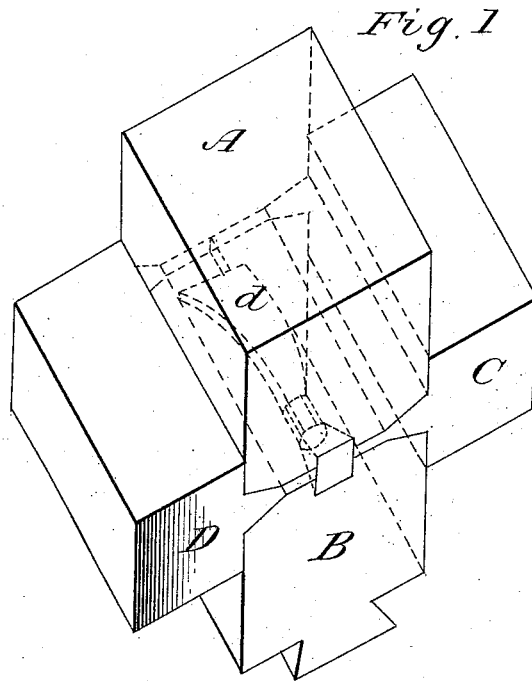
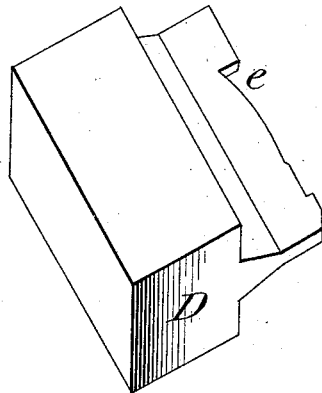


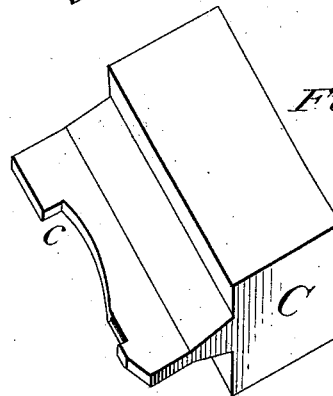
F. TRANSUE.  
Dies for Threshing-Machine Spikes.  
No. 221,372.                      Patented Nov. 4, 1879.



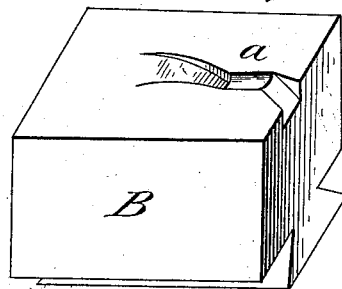
*Fig. 3*



*Fig. 2.*



*Fig. 4.*



*Attest:*

*J. D. Lewis  
S. V. Essick*

*Inventor:*

*Frank Transue*

# UNITED STATES PATENT OFFICE.

FRANK TRANSUE, OF ALLIANCE, OHIO.

## IMPROVEMENT IN DIES FOR THRASHING-MACHINE SPIKES.

Specification forming part of Letters Patent No. **221,372**, dated November 4, 1879; application filed February 25, 1879.

*To all whom it may concern:*

Be it known that I, FRANK TRANSUE, of Alliance, in the county of Stark and State of Ohio, have invented a new and useful Improvement in Dies for Making Thrashing-Machine Spikes and other forged articles, which improvement is fully set forth in the following specification.

In reference to the accompanying drawings, Figure 1 is a perspective view of the invention, showing the dies A, B, C, and D brought together as they are, while forming a spike. Fig. 2 is a view of the right-hand die C, which forms the convex edge of the spike. Fig. 3 is a view of the left-hand die D, which forms the concave edge of the spike. Fig. 4 is a view of the die B, which is exactly like the upper die, A.

A and B are dies having recesses, as shown at *a*, by which the thick portion of the spike is formed. C is a die, having a recess, as shown at *c*, by which the convex edge and a portion of the stem of a spike is formed. D is a die, having a recess, as shown at *e*. The dotted lines at *d* represent the spike inclosed in the dies A, B, C, and D, when completed by the use of said dies. *e* is a recess in the die D, by which the concave edge of a thrashing-machine spike is formed. *c* is a recess in the die C, by which the convex edge of a thrash-

ing-machine spike is formed. *a* represents a recess, which is alike in both the upper and lower dies, which is used for forming the thick portion of the sides of a thrashing-machine spike.

The operation of my invention may be described as follows: The said die B is firmly fixed in the base or anvil of a drop-hammer or its equivalent. The die A is attached to the drop of said machine. As the said die A starts in its downward movement, by the use of levers or their equivalents, the die C and D are moved in the position in which they are seen in Fig. 1, where they remain until the said die A has completed its stroke. As the said die A rises, after having completed its stroke, the dies C and D move apart and so remain until the die A again drops, when, as the said die again starts downward, the said dies C and D are again brought together, and so remain until the said die A has again completed its stroke.

What I claim is—

The combination of the dies A, B, C, and D, shaped as described, and for the purpose of forming thrashing-machine spikes.

FRANK TRANSUE.

Witnesses:

J. M. HARRISON,  
S. V. ESSICK.