

G. B. BRAYTON.
MODE OF ATTACHING THE HEADS OF BOLTS, RIVETS, AND NAILS.
No. 38,652. Patented May 26, 1863.

Fig. 1.

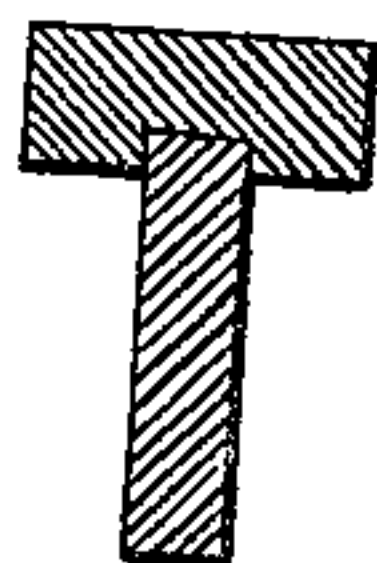


Fig. 2.

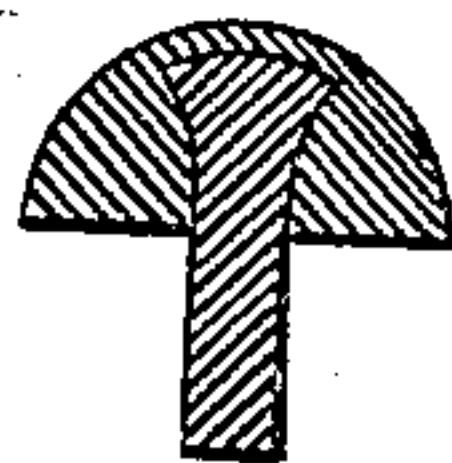
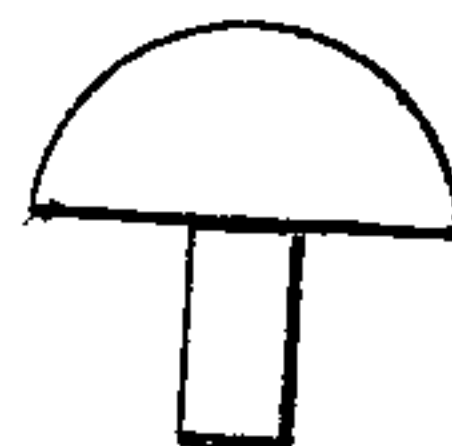


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE B. BRAYTON, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN MODES OF ATTACHING THE HEADS OF BOLTS, RIVETS, AND NAILS.

Specification forming part of Letters Patent No. 38,652, dated May 26, 1863; antedated April 18, 1863.

To all whom it may concern:

Be it known that I, GEORGE B. BRAYTON, of the city and county of Providence, and State of Rhode Island, have invented a new and useful method and improvement in the manufacture of bolts, screws, spikes, and rivets, of which the following is a full and exact description, reference being had to the drawings and model annexed.

I first prepare a piece of metal of a proper size and thickness for a "head," usually in a punching-press, and having heated it sufficiently, I place it in a machine with proper devices for performing all the necessary operations, (the same having been invented, and for which I am about to apply for Letters Patent.) I then force a metallic rod or wire of any desirable size and length for a "shank" partially into the heated head, Fig. 1, when both pieces are quickly received by a "shank-die," and the shank is forced still farther into the head and both pieces into a "heading-die" thereby giving the head the desired form and finishing the rivet or bolt, &c., Fig. 2. In this operation the result occurs which consti-

tutes the method of "dovetailing" together two pieces of metal, for when the end of shank is forced into the heated head it becomes softened, and when it is forced still farther into the head the resistance it meets in the heading-die causes the end of the shank to expand in the head, while the shank-die fitting shank so closely prevents the neck of it expanding, thus forming a perfect "dovetail joint," the shrinking of the metal as it cools adding strength and solidity thereto, Fig. 3.

Having thus described my invention, I wish it to be distinctly understood that I claim—

The method of dovetailing together two pieces of metal to form a bolt, screw, spike, or rivet by forcing the shank into and expanding the end of the same within the head, substantially as herein described.

In witness whereof I hereunto subscribe my name the 1st day of October, 1860.

GEORGE B. BRAYTON. [L. S.]

In presence of—

JAMES S. DAVIS, Jr..

L. M. WARE.