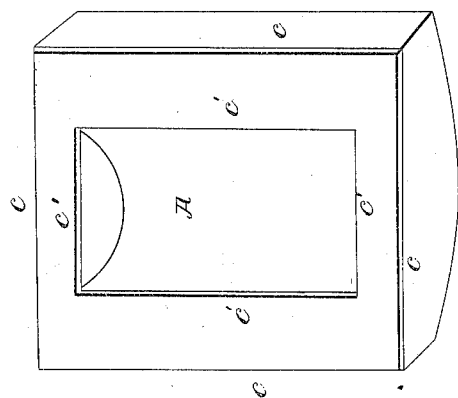
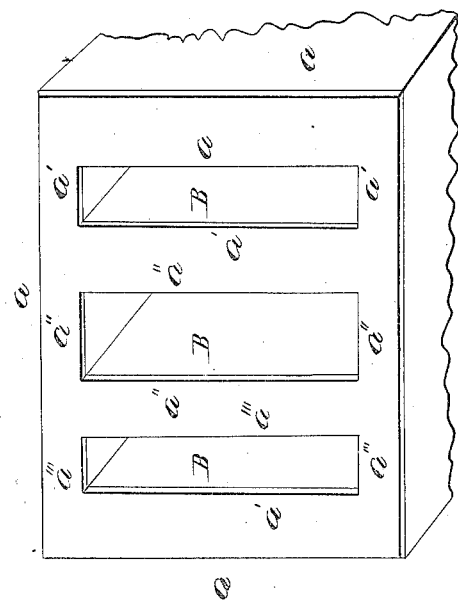


*J. Mulbery,*  
*Steam Slide Valve.*  
*N<sup>o</sup> 6,128.                      Patented Feb. 20, 1849.*

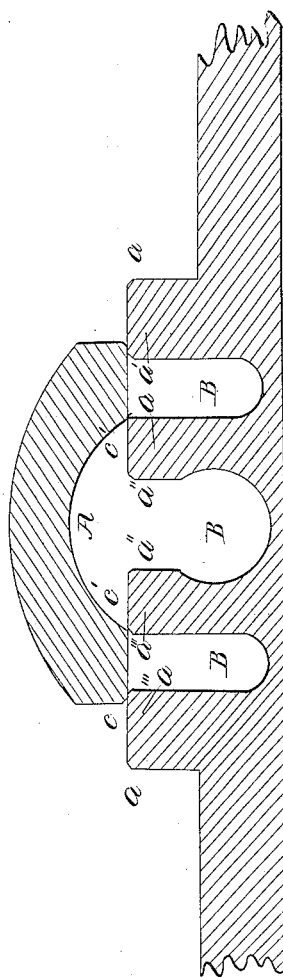
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



# UNITED STATES PATENT OFFICE.

JAMES MULBERRY, OF PARKERSBURG, PENNSYLVANIA.

SHORT SLIDE-VALVE BY CHAMFERING CORNERS.

Specification of Letters Patent No. 6,128, dated February 20, 1849.

*To all whom it may concern:*

Be it known that I, JAMES MULBERRY, of Parkersburg, in Chester county and State of Pennsylvania, have invented a new and Improved Mode of Preventing Slide-Valves from Cutting.

Having had long experience in the construction and operation of locomotive engine valves, I have observed that the loss of steam occasioned by their leaking, does not generally arise from the uneven wear of the surfaces of the valves, but it is from their having grooves cut therein apparently from some hard substance interposed between the slide and its seat, and from experiments made I have found that the angles or corners formed by the face of the seat of the valve, and the slides of the steam openings therein, and like angles on the slide by the termination on its face of the sides of the escape steam recess or cavity, supply the material that cuts the surface of the valve. The corners or angles before named being unsupported on their recess sides are detached in small fragments and carried between the slide and its seat cutting grooves therein.

My improvement consists in making the sides of the steam ways in the seat of the valve and the sides of the steam way in the valve or slide join their respective faces by rounded or flattened corners, also the joining of the outer sides of the seat and that of the outer sides of the slide with their respective faces by rounded corners, which will be fully understood by reference to the

annexed drawings making part of this specification.

Figure 1 is a perspective view of the valve or slide and Fig. 2 the seat on which the valve works. Fig. 3 is a sectional view of the valve on its seat in a vertical plane through their middles.

The letters in Figs. 1 and 2 indicate like parts in Fig. 3.

A is the steam way or cavity in Fig. 1, and B, B, B, the steam ways in Fig. 2.

The rounded or flattened corners in Fig. 2 are indicated by *a a a a, a' a' a' a' a' a'* and in Fig. 1, by *c c c c, c' c' c' c'*. It will be seen that all the sides of the openings in the seat and the sides bounding the seat join the face by rounded or flattened corners, and the face of the slide is joined to its outer sides and the sides of the steam cavity therein by corners rounded or flattened.

What I claim and desire to secure by Letters Patent, is—

The rounding or flattening of the corners joining the sides of the steam ways in and the outer sides of the seat of the valve with its face. Also the face of the valve or slide being joined to the sides of the steam cavity therein and to its outer sides by corners rounded or flattened in the manner and for the purposes herein set forth.

JAMES MULBERRY.

Witnesses:

JOSEPH C. DANFIELD,  
JOSEPH STOTT.