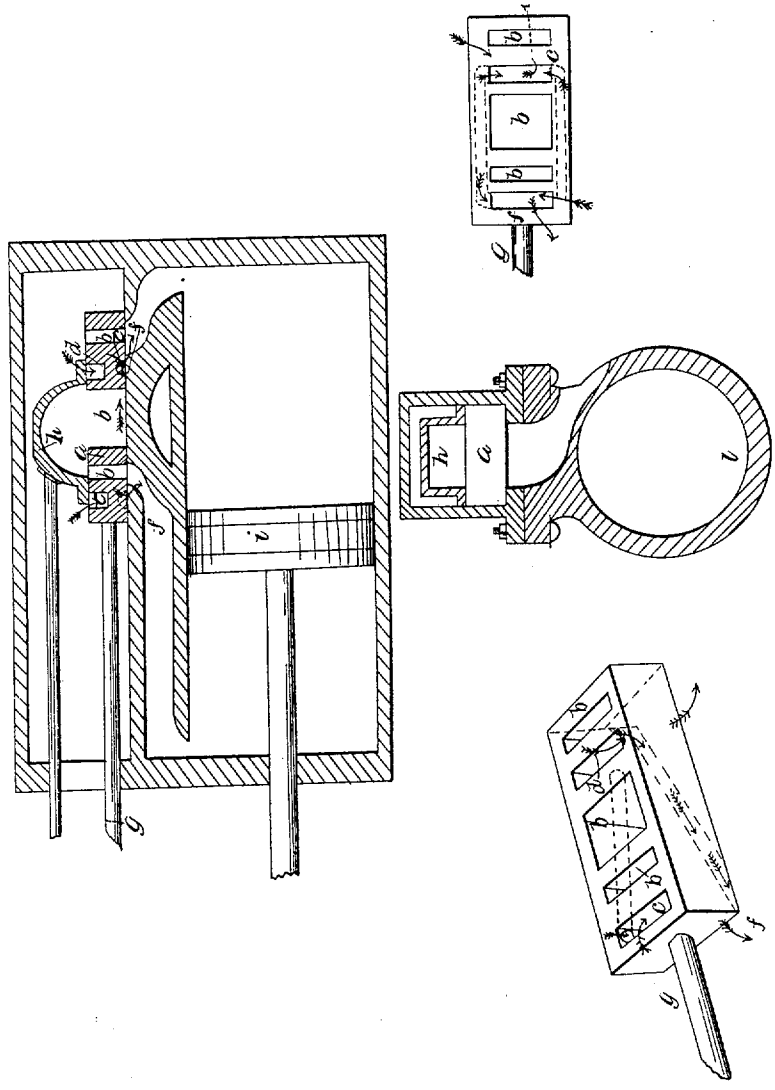
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A. M. Eastwick,

Steam Cut-Off.

Patented July 21, 1835.



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS.)

July 21. 1835 8979x 7/21/1835 579.

Andrew M. Eastwick
Letters Patent dated July 21. 1835.—

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Andrew M. Eastwick himself of his improvement in the construction of slide valves for Steam Engines.

To all whom it may concern. Be it known that I Andrew M. Eastwick of the City of Philadelphia in the State of Pennsylvania have invented an improved slide valve for steam engines by means of which the action of the engine may be reversed with the utmost facility thereby rendering the improved valve of special utility for engines for steam boats Locomotives for rail roads and other purposes. And I do hereby declare that the following is a full and exact description thereof. The slide and steam chest do not differ in their general construction from those in ordinary use, but to the latter an increased length and depth are given to admit of an additional sliding piece which I denominate a reversing shifting valve seat and upon the use of which my improved valve is dependent the permanent valve seat, also upon the body of the cylinder is furnished with openings into steam ways leading into each end thereof and with an escape opening, which do not differ from those in ordinary use. The reversing shifting valve seat above alluded to has five openings in it three of which pass directly through it and are so situated during the ordinary action of the Engine as to coincide with the steam ways and discharge openings upon the cylinder. The other two openings do not pass directly through the shifting valve seat but each of them after descending nearly half way through the seat is continuous laterally passing along by the ends of two of the direct openings first described and terminating on the opposite face of the shifting valve seat. The two lateral communications are at opposite ends of the direct openings. By this arrangement of these two extra openings the steam which is admitted into one of them does not pass into the steam way of the cylinder which is directly under it, but into

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into that leading to the opposite end thereof. In consequence of constructing the shifting valve seat in this manner all that is necessary to reverse the motion of the engine is to shift the shifting seat so as to bring the reversing openings into action and to throw the ordinary openings out of action. For this purpose a rod connected with the shifting valve seat passes through a stuffing box in the steam chest to that by means of a lever, cam, or other contrivance it may be instantaneously shifted in either direction. The steam chest must of course be made of such length as is necessary for this purpose. The openings which are not in action are closed by the division between the steam and discharge ways, and by the thick parts of the valve seat. What I claim as my invention is the construction of the reversing shifting valve seats containing the reversing openings constructed upon the principle or in the manner herein set forth whether the same be made precisely in the form described or in any other which is substantially the same producing a similar effect by analogous means.

(Witnesses)
Matilda C. Benns
Andrew Geyer

Andrew J. Bl. Bastwick

(59 words)

