

F. A. Brown,
Steam-Engine Valve-Gear.
N^o 44,159. Patented Sep. 13, 1864.

Fig. 1

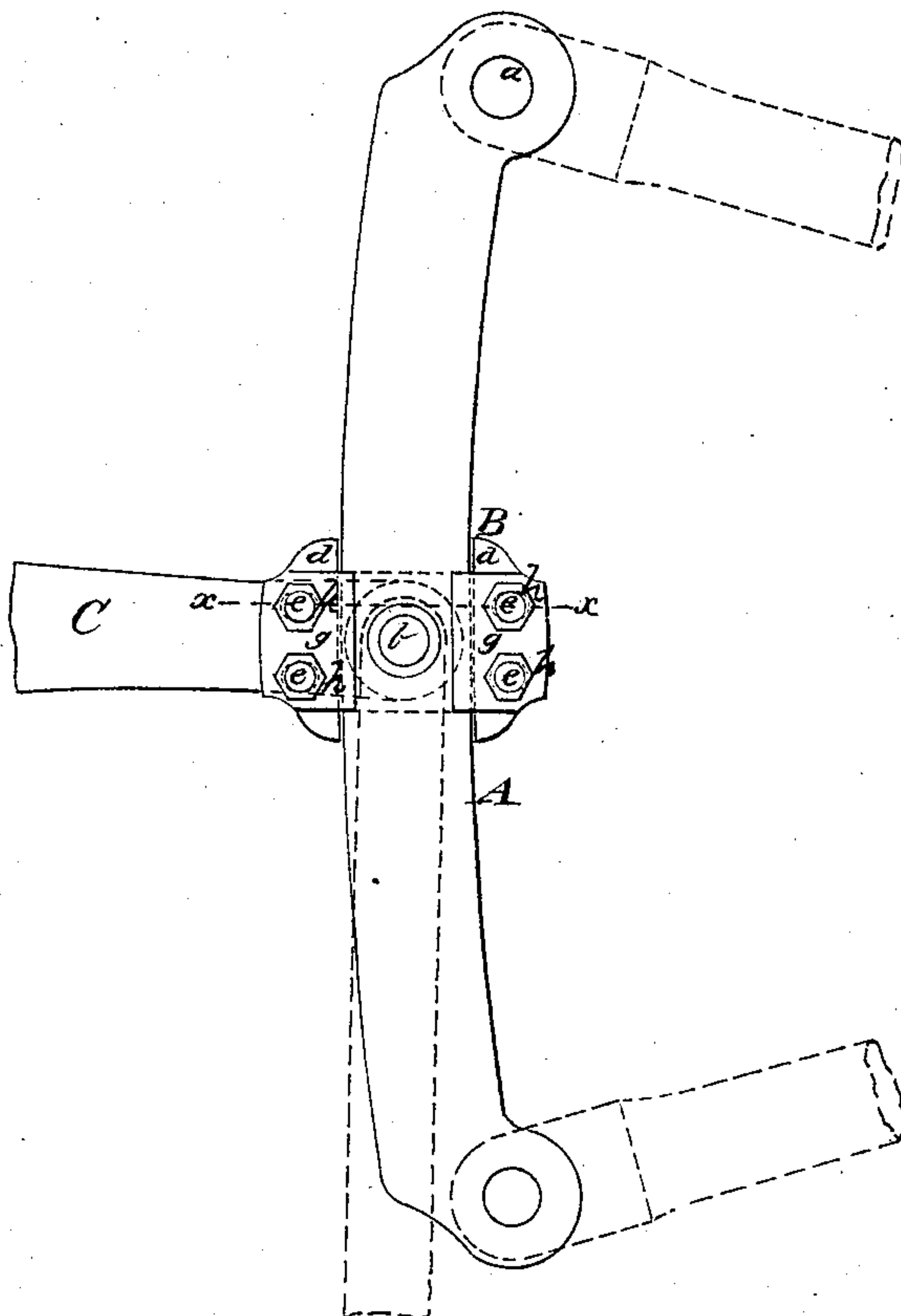
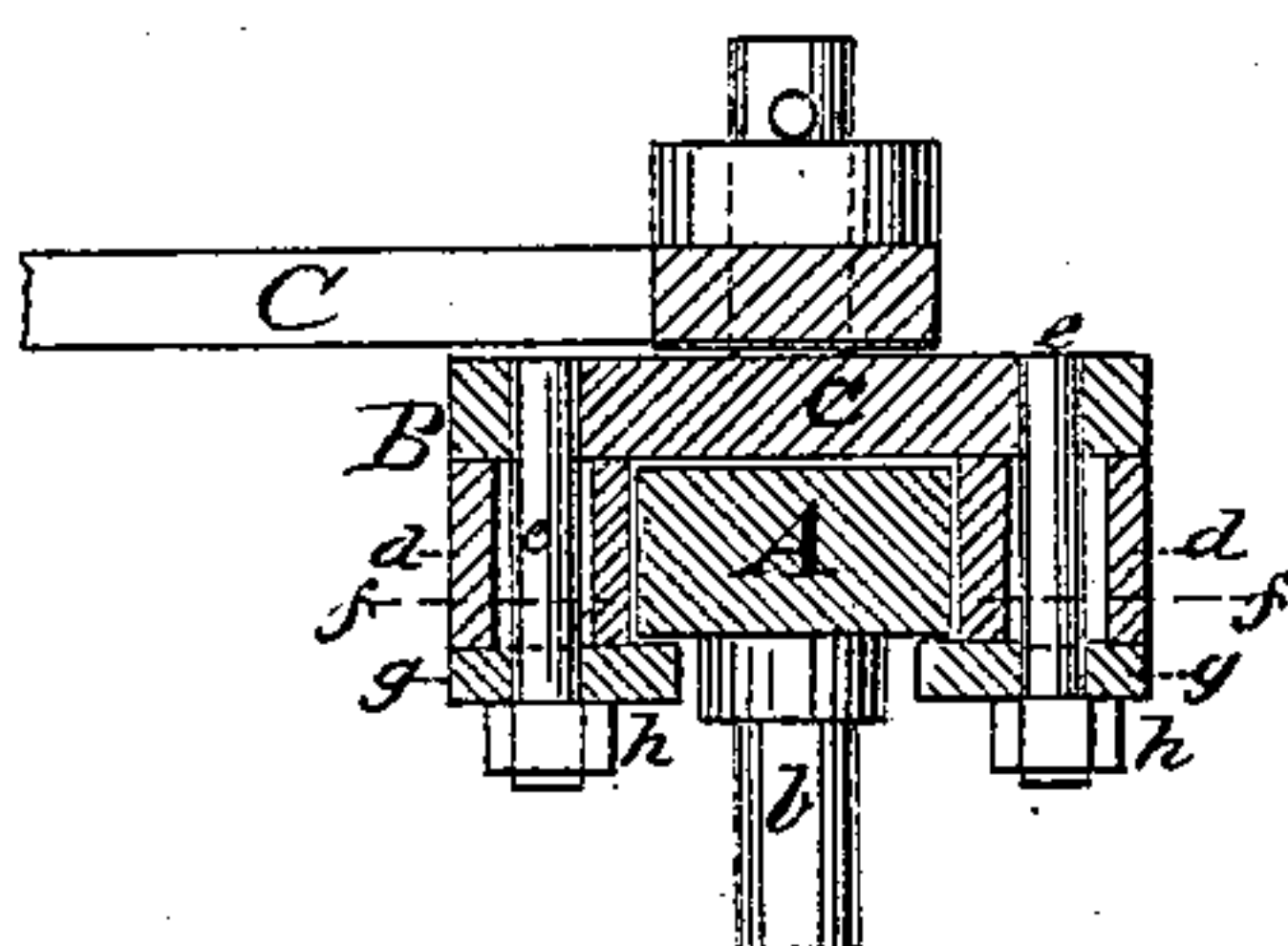


Fig. 2



Witnesses
Henry Morris
Lea Topleff

Inventor:
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per Munroe & Co

UNITED STATES PATENT OFFICE.

FRANCIS A. BROWN, OF ITHICA, NEW YORK.

IMPROVEMENT IN LINKS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. 41,159, dated September 13, 1864.

To all whom it may concern:

Be it known that I, FRANCIS A. BROWN, of Ithica, in the county of Tompkins and State of New York, have invented a new and Improved Link for Steam-Engines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a transverse section of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved link for operating the slide-valves of steam-engines and for reversing the former and regulating the admission of steam to the cylinder.

The invention consists in using a solid link instead of the slotted one in common use, and having the block to which the valve-rod is attached fitted on the link by means of clamps, all being arranged in such a manner as to admit of the link being constructed at a less cost than the ordinary ones in use, and capable of being kept in repair and proper working order with greater facility.

A represents the link, or rather the substitute for the ordinary slotted link. This link A is simply a curved bar, of rectangular form in its transverse section, and provided at each end with an eye, *a*, to which the eccentric

rods are connected, which operate the link. At the center of one side of the link A there is a pin, *b*, to which the link-adjusting mechanism is connected.

B is a block to which the rod C of the said valve is connected. This block is composed of a metal plate, *c*, which bears against the side of the link A, opposite to that from which the pin *b* projects, and two lugs, *d d*, are attached to the plate *c*, one at each end, by screws *e*, which pass through oblong slots *f* in the lugs. These lugs bear against the front and back edges of the link A, and on the screws *e* plates *g* are fitted and secured by nuts *h* on the screws, said plates lapping over the side of the link from which the pin *b* projects. The oblong slots *f* admit of the lugs *d d* being adjusted to compensate for wear, so that the link may always fit snugly to or in the block B.

The operation of the link, eccentric rods, and valve-rod being the same as usual, and well known to all engineers and machinists, no particular description in that particular is necessary.

I claim as new and desire to secure by Letters Patent—

A solid bar-link, A, provided with a valve-rod block, B, composed of plates *c g g* and adjustable lugs *d d*, connected by screw-bolts *e*, all arranged as and for the purpose specified.

FRANCIS A. BROWN.

Witnesses:

GRIFFIN PULTZ,

JACOB M. KIMBALL.