A. W. SMITH & J. BEGGS.

Slides for Steam-Engines.

No. 153,624. Patented July 28, 1874.

FIG. 1.

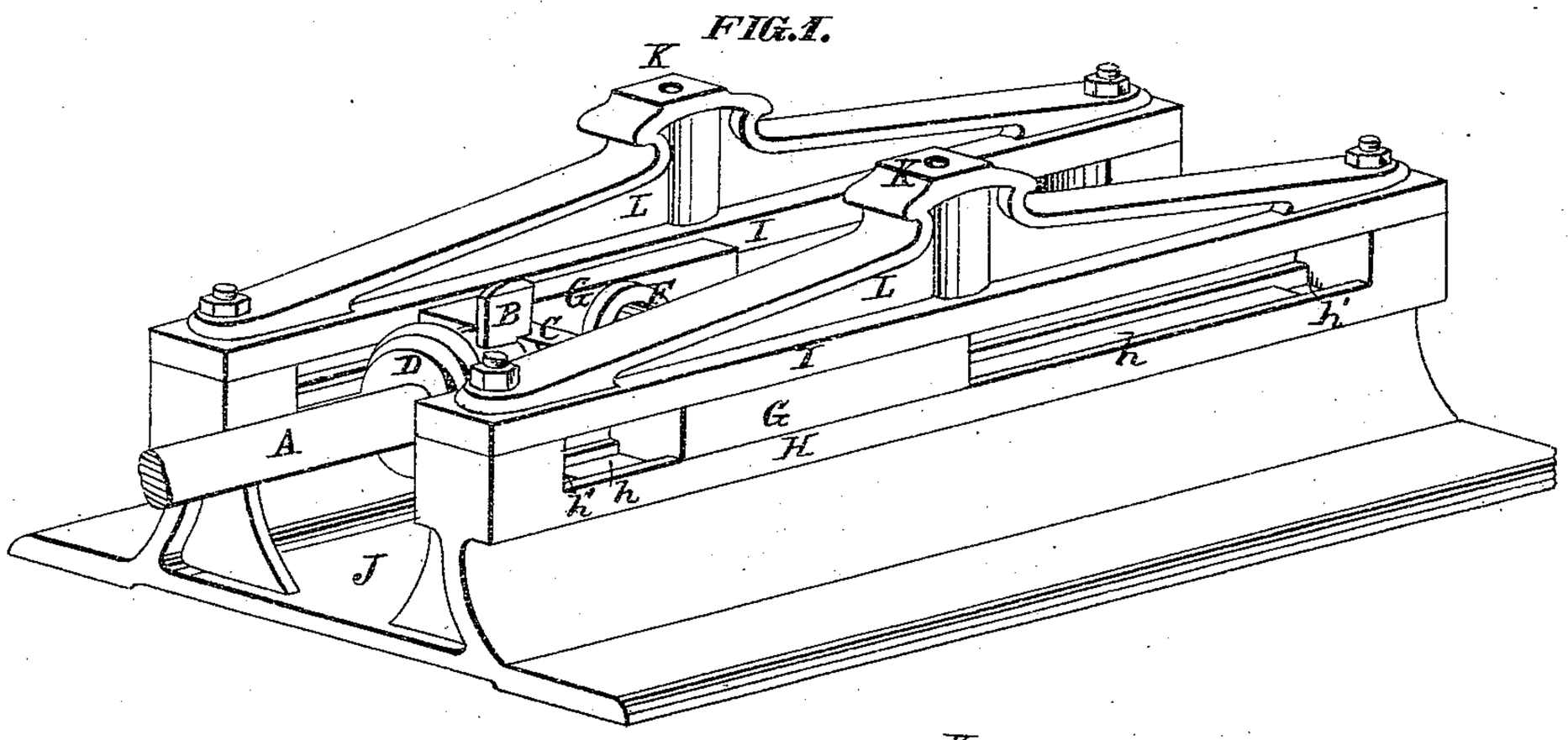


FIG. 2.

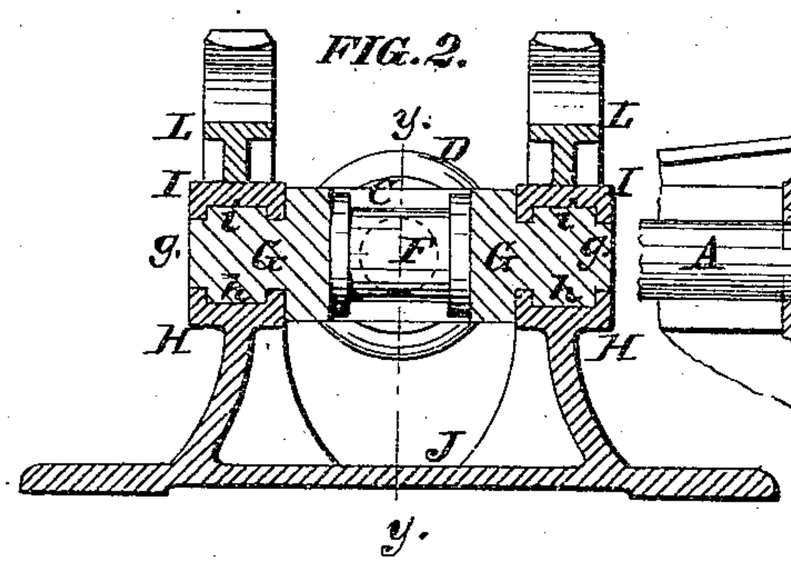
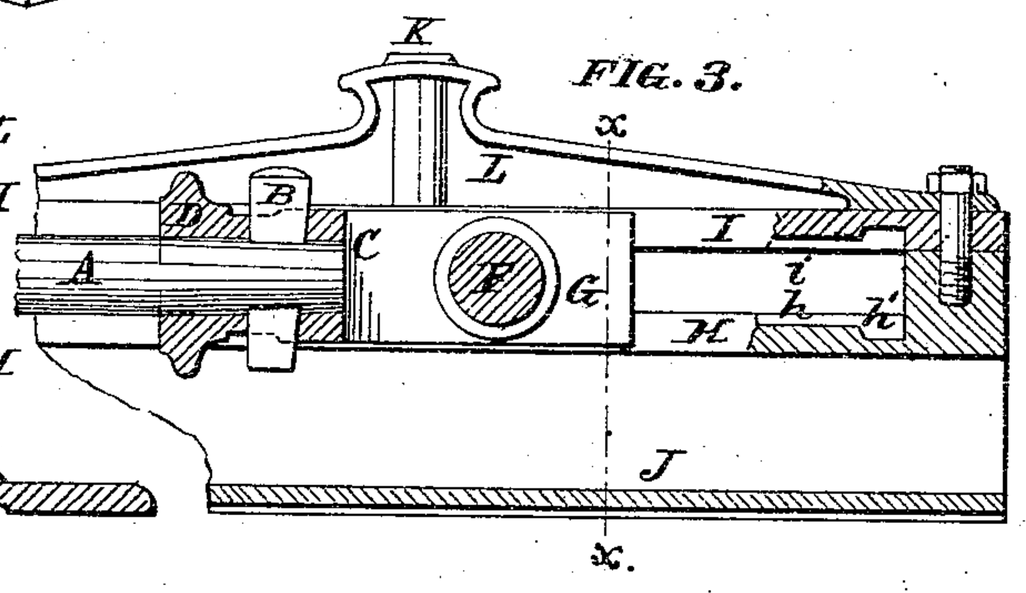


FIG. 3.



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UNITED STATES PATENT OFFICE.

ANTHONY W. SMITH AND JOHNSTON BEGGS, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN SLIDES FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **153,624**, dated July 28, 1874; application filed June 9, 1874.

To all whom it may concern:

Be it known that we, ANTHONY W. SMITH and JOHNSTON BEGGS, both of St. Louis, in the county of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Slides for Steam-Engines, of which the following is a specification:

This improvement relates more especially to the slides of horizontal steam-engines. Our invention consists in channeling the faces of the slides, as shown, so as to contain the oil, and also to act as a lateral guide to the cross-head. These channels have depressions at the ends to contain oil.

In the drawings, Figure 1 is a perspective view of our improvement. Fig. 2 is a section at *x x*, Fig. 3. Fig. 3 is a section at *y y*, Fig. 2.

A is the piston-rod, whose end is secured in its socket in the cross-head in the usual manner, namely, by a pin, B. The whole of the cross-head is cast in one piece. It has a cross-bar, C, with socketed boss D, for the attachment of the piston-rod A, and a cross-bar, F, which constitutes the wrist to which the connecting-rod or pitman is strapped. These two cross-bars are connected together by the slide-blocks G G on each side, which work in the slides H I. H is the lower member of the slide upon each side, and this is cast in one piece with the bed-piece J. *h* is a horizontal channel made in the top of the slide H, and having at each end a depression or cup, *h'*, to receive oil and to prevent it being forced over the edges of the channel by the sliding block or slider G.

The depressions *h* form also reservoirs, into which any grit blown into the channels may be carried by the sliders, the said grit settling to the bottom of the recess, and the clear oil (where in sufficient quantity) lubricating the slider by contact therewith at the end of each stroke.

The face of the slide I has a channel, *i*, similar to that *h*, and is connected to that *h* by bolts, so as to be removable for the purpose of putting the cross-head into position, the cross-head being cast in one piece, and the slide-blocks G G being rabbeted at the corners *g* to fit the upturned edges of the channels *h i*, as shown.

By this arrangement the usual flanged shoes, having side bearing against the slides, are dispensed with, the channel sides effectually preventing lateral movement of the cross-head, as well as retaining the oil, as before described.

The slides are oiled by oil-holes K, extending through the cap-plate L and through the top portion or bar I of the slide.

We claim as our invention—

1. The slides H I, having channels *h i*, and combined with the sliding blocks G of the cross-head, constructed substantially as set forth.

2. In combination with the sliding blocks G G and slides H I, the oil receivers or cups *h'*, substantially as set forth.

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Witnesses:
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