

(No Model.)

G. W. BRIGGS.

STOP MOTION FOR STEAM ENGINES.

No. 265,747.

Patented Oct. 10, 1882.

Fig. 1.

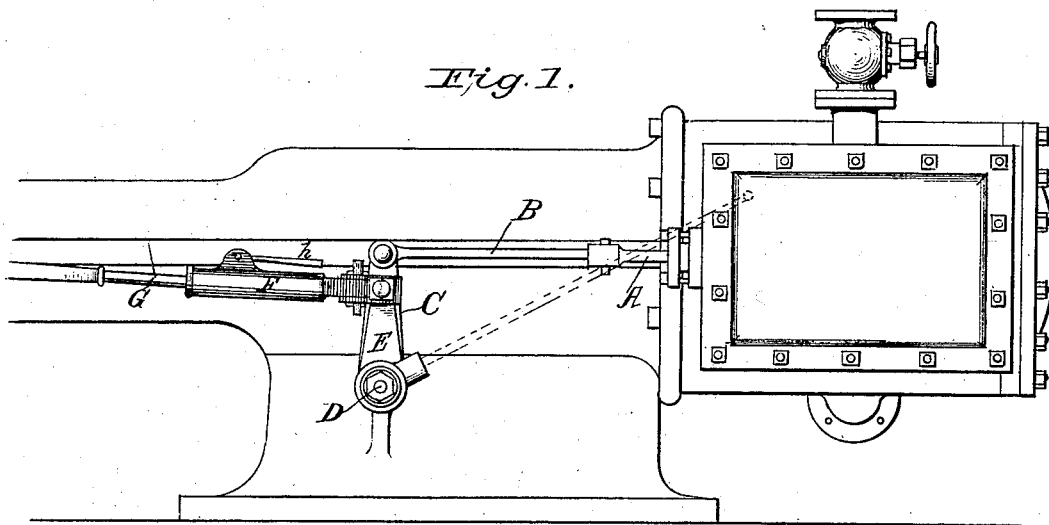


Fig. 2.

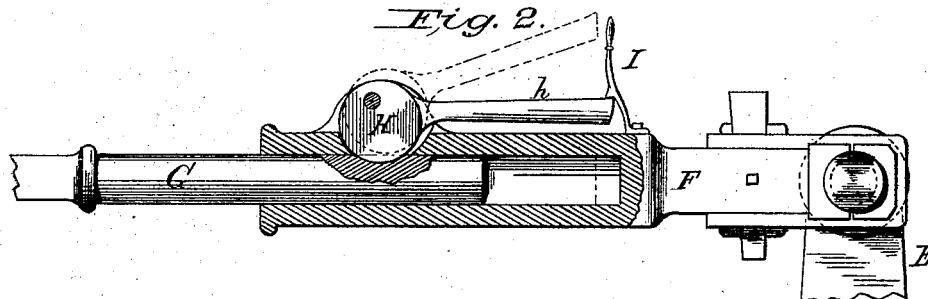


Fig. 3.

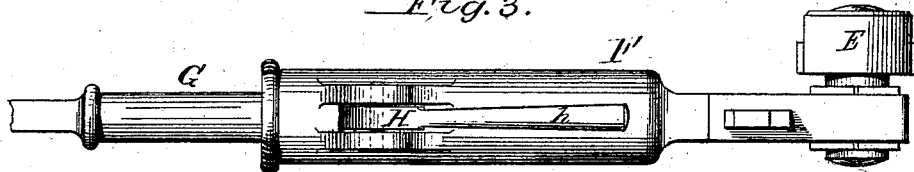


Fig. 4.

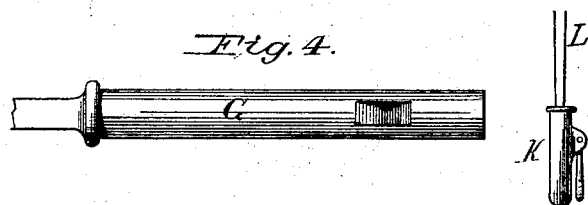
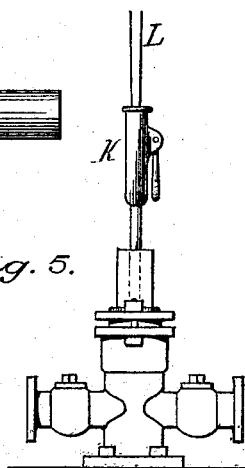


Fig. 5.



Witnesses:
A. J. Fonda,
E. J. Davis

Geo. W. Briggs
Inventor.

By H. L. Perrine,
Atty.

UNITED STATES PATENT OFFICE.

GEORGE W. BRIGGS, OF DENVER, COLORADO.

STOP-MOTION FOR STEAM-ENGINES.

SPECIFICATION forming part of Letters Patent No. 265,747, dated October 10, 1882.

Application filed May 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BRIGGS, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Stop-Motions for Steam-Engines, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

Although adapted for use in other connections, as will be hereinafter explained, this invention relates more particularly to the stop-motion mechanism of the valve-gear of steam-engines.

It consists in interposing a sleeve between a continuously-reciprocating rod and the device to be reciprocated thereby, in which sleeve the rod may either reciprocate or to which it may be locked at the proper point by a locking-cam mounted on the sleeve and adapted to engage a recess in the rod.

In order that my invention may be clearly understood, I have illustrated in the annexed drawings and will proceed to describe the best form thereof at present known to me as applied to the valve-gear of a steam-engine, and also its application to a pump-rod.

Figure 1 is a side elevation of so much of a horizontal reciprocating engine as will clearly illustrate my improved stop-motion. Fig. 2 is a sectionized side elevation of the stop-motion detached. Fig. 3 is a plan view of such detached stop-motion. Fig. 4 illustrates the end of the eccentric-rod. Fig. 5 illustrates the application of my invention to a pump-rod.

The same letters of reference indicate identical parts in all the figures.

The use of my invention as a stop-motion I have illustrated in the annexed drawings in connection with a steam-engine in which the valve-stem A is operated by the arm C of a rock-shaft, D, through a connecting-rod, B, the rock-shaft D being provided with an arm, E, with which the eccentric-rod G can be connected by means of the sleeve or socket F. The sleeve is constructed with a shank, which is strapped to the stud-pin of arm E, as clearly shown, so that the sleeve may turn on said arm, as required. The end of the eccentric-rod is snugly fitted in the bore of the sleeve, and is adapted to freely slide therein, except when it is locked thereto by a locking device, which in this instance consists of an eccen-

tric or cam, H, pivoted to the sleeve opposite to a hole, *f*, therein, through which hole the cam can be made to enter to engage a notch or depression, *g*, in the eccentric-rod. The notch *g* conforms to the curve of the cam, so that the eccentric-rod will always be locked at the proper point to the sleeve, and consequently operate the valve with proper reference to the motion of the piston. The locking-cam H is provided with a handle, *h*, for operating it, and a spring-hook, I, may be fastened to the sleeve, adapted to lock handle *h* when the cam is in engagement with the eccentric-rod.

In applying my invention to a pump-rod I divide such rod at the proper point and rigidly secure to or form on one section thereof a socket, K, in the bore of which the adjacent end of the other section, L, of the pump-rod is fitted, so that it may slide freely therein, being notched like the eccentric-rod G, and the socket K being provided with a locking-cam for locking section L of the pump-rod to the socket K of the other section, all as shown in Fig. 5.

I prefer to use a cam for locking a notched reciprocating rod to the sleeve or socket; but it is obvious that other well-known means may be employed to detachably lock a reciprocating rod to such sleeve or socket at a determinate point without essentially changing the combination. Again, the device for transmitting the motion of the reciprocating rod need not necessarily be a sleeve or socket, although I prefer that. This socket and cam can be used as a substitute for the ordinary drop hook employed on steam-engines.

Having thus fully described my invention, what I claim is—

The combination, substantially as before set forth, of a reciprocating rod provided with a depression or notch, a sleeve or socket adapted to transmit the motion of such rod, and a cam pivoted to the sleeve and adapted to enter the depression in the rod through a hole in the sleeve for the purpose of locking the rod to the sleeve at a determinate point.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. BRIGGS.

Witnesses:

CHARLES S. WILSON,
JAMES DILTS.