

No. 777,758.

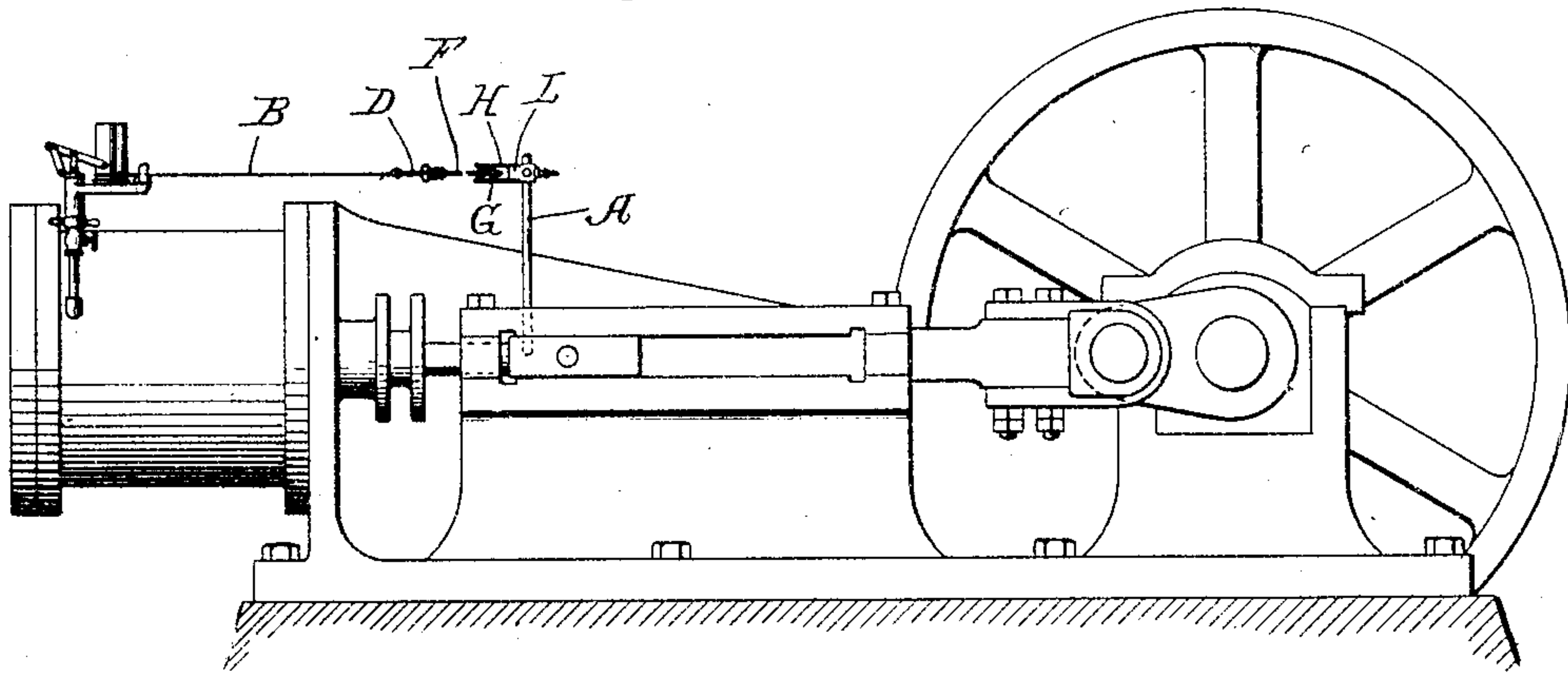
PATENTED DEC. 20, 1904.

E. G. TAYLOR.  
AUTOMATIC INDICATOR CONNECTING SNAP.

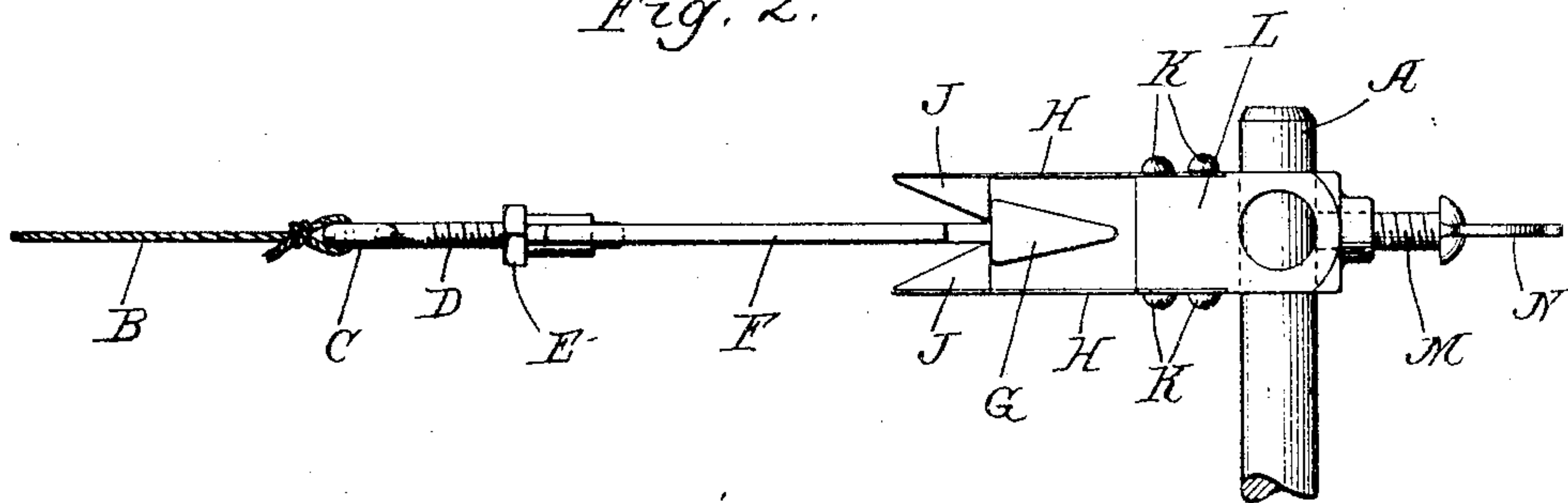
APPLICATION FILED DEC. 9, 1901.

NO MODEL.

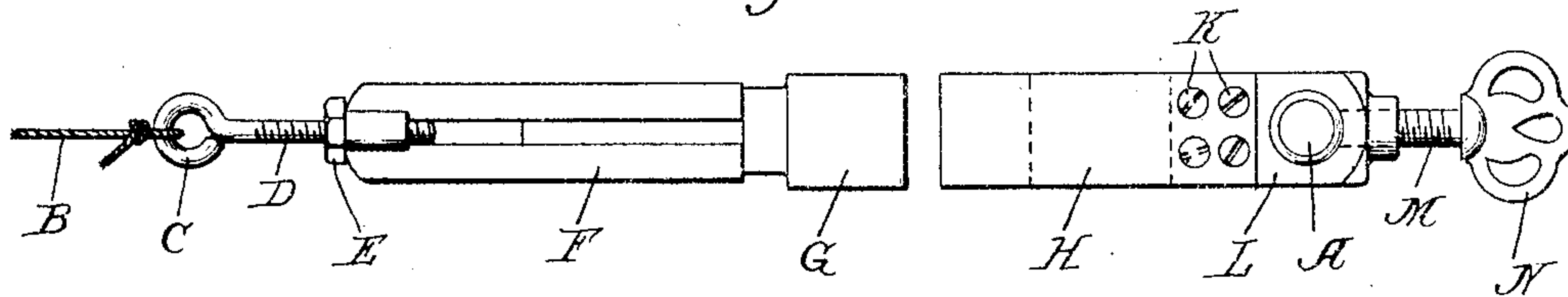
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC INDICATOR-CONNECTING SNAP.

SPECIFICATION forming part of Letters Patent No. 777,758, dated December 20, 1904.

Application filed December 9, 1901. Serial No. 85,139.

*To all whom it may concern:*

Be it known that I, EMIL G. TAYLOR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented a certain new and useful Improvement in Automatic Indicator - Connecting Snaps, of which the following is a specification.

My invention relates to automatic indicator-connecting snaps or devices for connecting  
10 the cord or other operating part proceeding from the indicator with a moving part attached to the cross-head of a steam-engine and for other such like uses.

Figure 1 is a side view with the parts shown,  
15 as it were, diagrammatically, but showing them in their relation to the engine-indicator. Fig. 2 is an enlarged side view of the snap with the parts engaged. Fig. 3 is a plan view of the snap with the parts disengaged.

20 Like parts are indicated by the same letters in all the figures.

A is the rod, which is attached to the cross-head or moving part and may be either vertical or horizontal. In Fig. 2 it is shown  
25 as projecting horizontally and in Fig. 3 as rising vertically. B is the cord or other part whereby the snap is to be ultimately connected with the indicator, so as to operate the same. C is an eye, preferably arranged on the screw-bolt D, so that the effective length of the cord  
30 connected with the eye C may be adjusted. E is a lock-nut to set the parts when the adjustment is made. F is a bar, receiving at one end the screw-threaded end of the bolt D and having at the other end the engagement-lug G. The entire part thus described, as  
35 shown in Fig. 3, is to be attached to the cord or other part connected with the indicator and forms one of the interlocking parts of the snap. H H are flat springs, having each at its outer end a lug J and secured by means of the bolts K K to the body portion L, which has in it two holes at right angles to each other, one to  
40 receive the horizontal rod A and the other to receive such rod when it is arranged vertically. M M are screw-threaded lock-bolts, which enter the end of the body portion L and are adapted to clamp the rod A, and thus hold this portion of the snap in rigid relation to

the rod when it has been brought to the proper  
50 position. This bolt M is provided with the thumb-piece N, so that it may be conveniently manipulated. It is evident that these parts may be very considerably altered in size, proportion, and arrangement and some of them  
55 omitted without departing from the spirit of my invention.

The use and operation of my invention are as follows: When an indicator is to be connected with a moving cross-head, the body  
60 portion L is inserted in proper position, so as to bring the flat sides of the springs H H up, and it is then placed upon the rod A, whether the latter be vertical or horizontal, and locked in the proper position by the manipulation of  
65 the thumb-piece N on the screw-bolt M. When this has been done, this portion of the snap, together with the springs H H and their locking-lugs J J, reciprocates with the cross-head. The indicator is of course properly placed in  
70 position. When it is desired to take an indication or card and it is necessary to make the connection, the operator will take in his hand the bar or piece F and bring it gradually to a position as nearly as possible in front of and  
75 at the end of the excursion of the spring-engaging lugs J J. Then as these spring-engaging lugs move toward his hand at the proper moment, determined, of course, by a more or less skilful engineer, he will thrust the wedge-  
80 like part G forward between the locking-lugs J J, and thus the parts will be engaged and the operation of the device begun. When it is necessary to disengage the parts, he has only to move the part F slightly to one side,  
85 when the locking-lugs will be separated. The parts are held in operative connection during the operation by reason of the fact that the spring, and therefore all other parts associated therewith, is held taut by the counteracting  
90 spring of the indicator. They are also held in proper relation because the load or weight of the moving parts is thrown upon the rod of the cross-head. They are also kept from disengagement laterally because of the spring  
95 action of the parts H H, which cause the lugs J J to slightly clamp the part F back into the wedge-shaped part G.



I claim—

1. In a device for connecting the cross-head with the indicator of an engine the combination of the cord B, having adjustably secured  
5 on one end thereof the rod F with the arrow-head or wedge-like plug G, with a pin upwardly projecting from the cross-head, and a body L adjustably secured thereon, said body  
10 provided with two forwardly-projecting spring-hooks, composed each of the spring part H and the inwardly-projecting part J, the whole arranged and the parts related substantially as described.

2. In a device for connecting the cross-head  
15 with the indicator of an engine the combination of a part flexibly and movably connected with the indicator so as to be free to be moved in any position by the hand with a plug-like part associated therewith, a part rigidly con-  
20 nected with the cross-head and having a spring-actuated plug-receiving device whereby the two parts may be attached together while the rigidly-fixed part is in motion, the plug-carrying part being brought into proper relation  
25 thereto, the construction of the plug and interlocking device being such that they cannot disengage by motion in the line along which they were brought together.

3. In a device for connecting the cross-head  
30 with the indicator of an engine the combina-

tion of a loose part flexibly and movably connected with the indicator and containing a plug-like portion with a part rigidly connected with the cross-head, and containing, spring-  
35 actuated, interlocking jaws to receive the plug, said plug and jaws constructed so that they can only be disengaged when one is moved across the line of their travel.

4. In a device for connecting the cross-head  
40 with the indicator of an engine the combination of a part flexibly and movably connected with the indicator so as to be free to be moved in any position by the hand with a wedge-like  
45 plug part associated therewith, a part rigidly connected with the cross-head and consisting of two spring-actuated parts, hook-shaped at their free ends and adapted to separate to receive the wedge-like plug, the shoulders of  
50 said plug interlocking with the hook-shaped ends while the rigidly-fixed part is in motion, the plug-carrying part being brought into proper relation thereto, the construction of the plug and interlocking device being such  
55 that they cannot disengage by motion in the line along which they were brought together.

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Witnesses:

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