(No Model.)

J. P. ANNETT.

RAILWAY SIGNAL CONNECTION.

No. 497,758. Patented May 23, 1893.

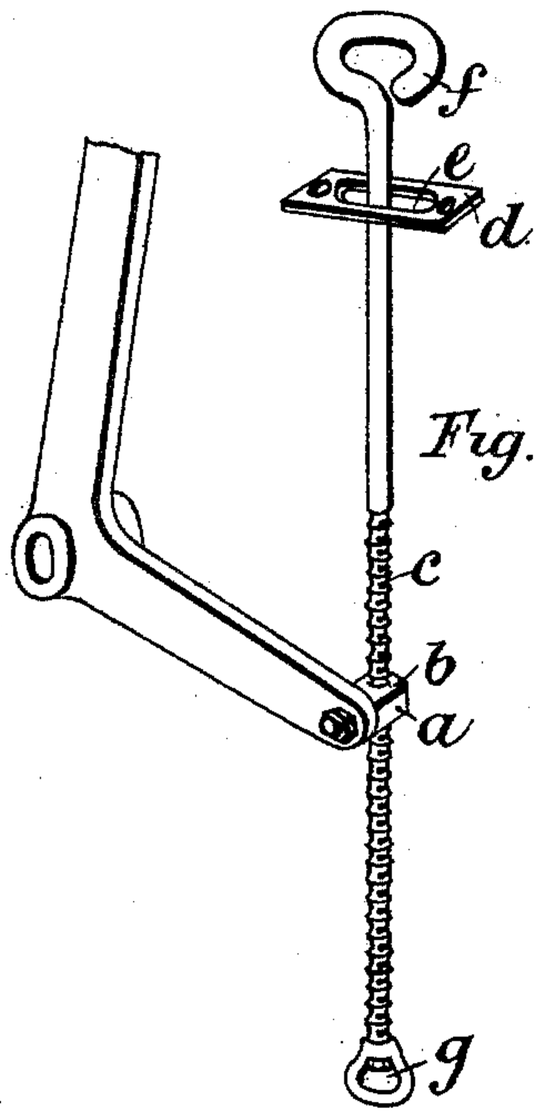

Fig. 1.a

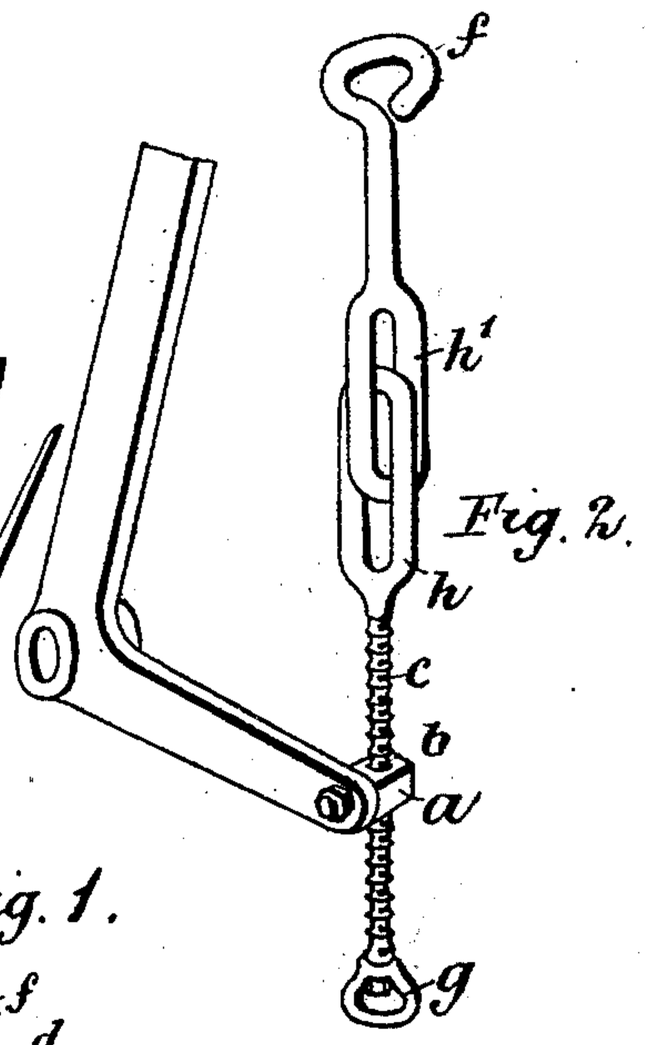

Fig. 2.

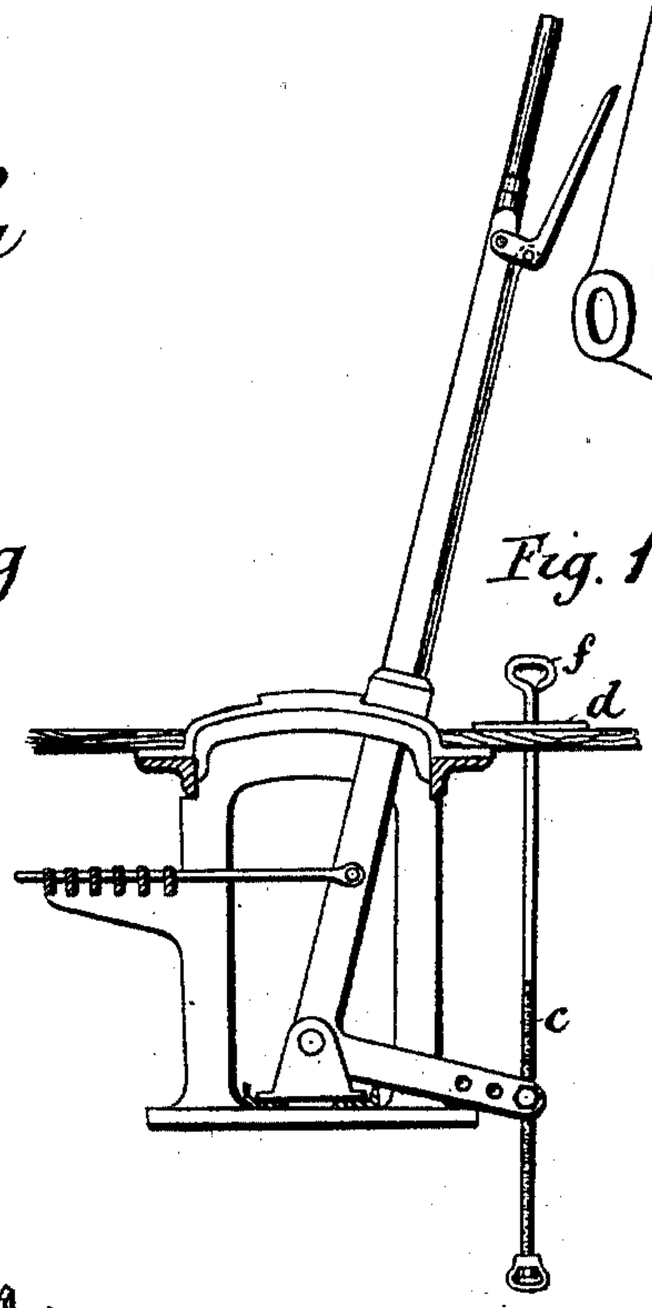

Fig. 1.

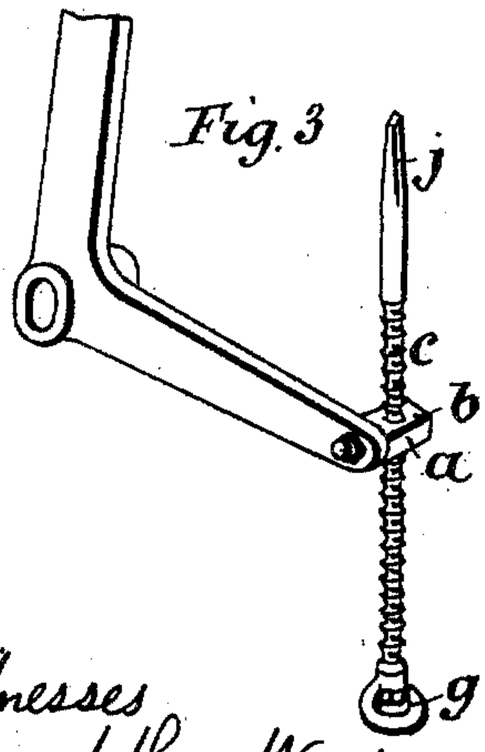

Fig. 3

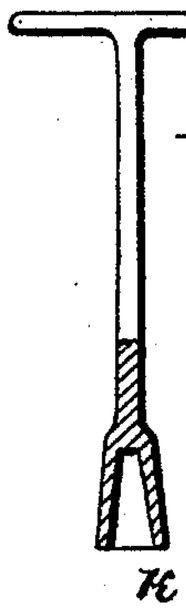

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES PHILIP ANNETT, OF EASTLEIGH, NEAR SOUTHAMPTON, ENGLAND.

RAILWAY-SIGNAL CONNECTION.

SPECIFICATION forming part of Letters Patent No. 497,758, dated May 23, 1893.

Application filed October 26, 1892. Serial No. 450,088. (No model.) Patented in England October 27, 1886, No. 13,756.

To all whom it may concern:

Be it known that I, JAMES PHILIP ANNETT, a subject of the Queen of Great Britain and Ireland, residing at The Elms, Eastleigh, near Southampton, in the county of Hampshire, England, have invented new and useful Improvements in Adjusting Railway-Signal Wires, (for which I have obtained a patent in Great Britain, No. 13,756, bearing date October 27, 1886,) of which the following is a specification.

The object of my invention is to secure greater safety in the working of railway signals by providing a simple and ready means by which the signalman can quickly adjust the signal wires without his having to leave the signal box.

This I perform in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of apparatus embodying my invention. Fig. 1ª is a perspective view on an enlarged scale of a portion of the mechanism in Fig. 1. Figs. 2 and 3 are like views of modifications of the same. Fig. 4 is a view of the key to be used with the modified device in Fig. 3.

On the tail of an ordinary signal lever of a locking apparatus in place of the existing shackle I fix a stud or projecting piece *a* having a round hole *b* tapped in it through which I pass a rod *c* having a thread of the required length cut on it above and below the stud or projecting piece *a;* this rod *c* I carry up so as to pass through the floor of the signal box behind the levers in the locking apparatus where I fix a plate *d* having a suitable hole *e* for it to pass through and on the upper end of the rod *c* that projects above the floor I have either a loose or a fixed handle *f* that will enable the signalman to turn the rod *c* round in either direction. To the lower end of the rod *c* that projects below the stud piece *a* on the lever tail I provide a swivel *g* to which the wire is attached in any well known manner instead of to the ordinary shackle, the action of the apparatus being that if the wire between the signal box and the signal is too slack the signalman without leaving the signal box can by turning the handle in one direction raise the rod *c* to which is attached the swivel *g* and wire so taking up the slack wire and adjusting it in such a manner that the signal will work properly, and if the wire should be too tight he can by turning the handle in the opposite direction slacken the wire to the proper degree of tension required for the signal to work accurately. In pulling over the signal lever the upper end of the rod *c*, Fig. 1, works freely through the hole *e* in the plate *d* that is fixed on the floor of the signal box but does not in any way add to the labor of working the signal.

In some cases instead of having a solid continuous rod as in Figs. 1 and 3, I make the rod sectional or in two pieces as in Fig. 2 the lower threaded rod section *c* which works in the nut and is to be connected at its lower end to the signal wire, terminating at the top in a link *h* or its equivalent which is looped to a like link on the lower end of the upper rod section *h'*—and in this way the up and down movement of the lower section through the nut, will not produce a corresponding rise and fall of that end of the rod which projects through the floor. The upper rod section is of course suitably formed at the top—as for instance with a handle *f*—to permit of its convenient manipulation by the signal man. The operating rod may terminate at the top in a square *j* or other suitably shaped end as seen in Fig. 3, to take a corresponding operating key, such as shown in Fig. 4, having preferably a bell shaped end *k*.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In railway point and signal apparatus the combination with an interlocking lever, and a signal wire for the operation of signals or other signal appliances, of a nut or die attached to the tail of the lever, and a rod threaded to work through the nut, having its lower end connected to the signal wire, and its upper end projecting beyond the floor of the signal cabin and provided with a suitable top for movement by the signal man for the purposes of adjustment, substantially as hereinbefore set forth.

2. The combination with an interlocking

lever for railway point and signal apparatus of a nut or die attached to the tail of the lever, and a sectional operating rod consisting of a lower rod section threaded to work through said nut, and attached to the signal wire, and an upper rod section linked by a loop connection to the top of the lower section, substantially as and for the purposes hereinbefore set forth.

3. The combination with an interlocking lever for railway point and signal apparatus of a nut or die attached to the tail of the lever, and a rod threaded to work through said nut, connected at its lower end to the signal wire, and having its upper end projecting through the floor of the cabin and squared to receive an operating key for adjusting purposes, substantially as hereinbefore set forth.

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

JAMES PHILIP ANNETT.

Witnesses:

CHRISTOPHER H. H. CANDY,

W. NEWSHAM.