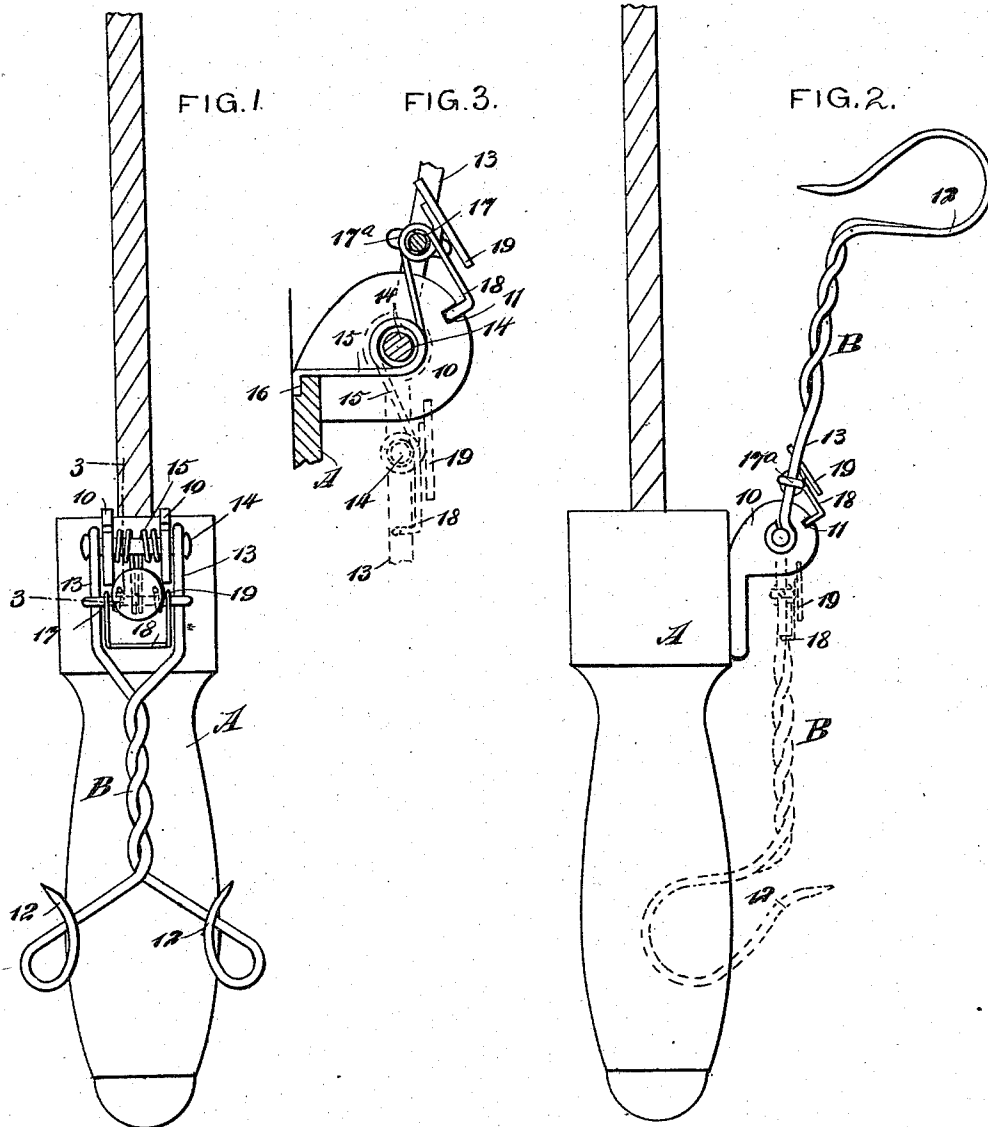


(No Model.)

G. M. FRENCH.
GUARD FOR SIGNAL HANDLES.

No. 579,342.

Patented Mar. 23, 1897.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE M. FRENCH, OF MATTOON, ILLINOIS.

GUARD FOR SIGNAL-HANDLES.

SPECIFICATION forming part of Letters Patent No. 579,342, dated March 23, 1897.

Application filed September 18, 1896. Serial No. 606,215. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. FRENCH, of Mattoon, in the county of Coles and State of Illinois, have invented a new and Improved Guard for Signal-Handles, of which the following is a full, clear, and exact description.

My invention relates to a guard for railroad-signals, the guard being intended to prevent improper handling of such signals through the force of habit in following the ordinary routine or through forgetfulness.

The invention is particularly adapted to train-order or block signals manipulated by telegraph-operators. The understood rules on the majority of railroads require such signals to be retained in the danger position at all times except when changed to the safety or caution position to permit to pass a train for which there are no orders. The operator frequently falls into the habit of changing the signal from "danger" to "safety" on the approach of each train, and eventually does the same thing when he holds orders for the approaching train, and a collision is the result. The object of the invention therefore is to avoid these mistakes. This is attained by a guard adapted for attachment to the handles of signals, said guard being so constructed that when attached to the handle of the signal and when said device is in safety position the guard will not interfere with the working of the signal, but when the device is in the danger position it will interfere with the grasp of the operator on the handle, and so call his attention to the fact that it must not be moved. The device is also so constructed that it may be utilized as a file for train-orders or other important information, placing this matter in such position that it cannot be overlooked.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the guard applied to the handle of a signal, the attachment being in the danger position. Fig. 2 is a side elevation of the signal-handle, the

guard being shown in the safety position in positive lines and in the danger position in dotted lines; and Fig. 3 is a section taken substantially on the line 3 3 of Fig. 1, the guard being in safety position.

In carrying out the invention the handle A of the signal to which the guard is to be applied may be of any construction and is provided ordinarily at the front with two ears 10, in which slots or recesses 11 are produced. The body portion B of the guard is in the nature of a handle, and comprises a shank which is bifurcated at the bottom and at the top, the members at the bifurcated bottom portion of the body being bent upon themselves to form hooks 12, which seriously interfere with the grasping of the signal-handle when the guard is carried against the handle, and the said hooks also serve as a file or holder for train-orders or for other important information, bringing the orders or information immediately before the operator when the said operator attempts to operate the signal.

The members 13 at the upper bifurcated end of the body of the guard are pivoted to the ears 10 of the handle through the medium of a suitable pivot-pin 14, and a spring 15 is attached at its ends 16 to the signal-handle A, as shown in Fig. 3, the material of the spring being carried in two separate coils around the pivot-pin 14, as shown in Fig. 1, and the spring is then carried from a point between the two coils forwardly and is attached to a bridge-bar 17, having eyes 17^a, receiving the members 13 at the upper end of the guard. A pawl 18 is pivoted on the bridge-bar 17, and the pawl usually consists of a piece of wire or equivalent material, which extends outwardly from the bridge-bar between the bifurcated ends 13 of the body of the guard and is then bent downward upon itself in direction of the aforesaid members 13 or in direction of the signal-handle A, so that when the body B of the guard is raised to free the signal-handle A the said pawl may enter the recesses 11 in the ears 10 to hold the guard in the upper or safety position. (Shown particularly in Fig. 2.)

Preferably the inner ends of the material of the pawl are coiled around the bridge-bar and are secured to a disk 19 or its equivalent,

the said disk being adapted to facilitate the raising of the pawl from engagement with the ears when the guard is to be carried to a danger position, the spring 15 acting to automatically force the guard to the aforesaid danger position shown in Fig. 1, and therefore when the attachment is raised to the safety position illustrated in Figs. 2 and 3 the spring 15 is placed under tension.

It is evident that when the guard is moved downward to an engagement with the signal-handle the operator cannot grasp the said handle without the knowledge that the attachment is there and in the danger position, and, being thus reminded, before the signal is operated the operator will naturally stop to consider whether or not it is his duty to change the position of the said signal.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A guard adapted for attachment to the operating-handle of a signal, the guard being provided with a portion which will form an obstruction serving as a reminder when the signal-handle is grasped, as and for the purpose specified.

2. A guard adapted for attachment to the operating-handle of a signal, the guard being provided with a portion which will form an obstruction serving as a reminder when the signal-handle is grasped, and means, substantially as described, for carrying the attachment from that portion of the handle that is to be grasped, and holding it in such position, as and for the purpose set forth.

3. The combination, with the handle of a signal, of a guard having pivotal connection

with the handle and arranged to extend substantially parallel therewith, and a locking device for holding the attachment away from the handle, as and for the purpose set forth.

4. The combination, with the handle of a signal, of a guard having pivotal connection with the handle and arranged to extend substantially parallel therewith, and a locking device for holding the guard away from the handle, the guard being provided with spurs forming a file for train-orders, or other written or printed information, as and for the purpose specified.

5. The combination, with a signal-handle, of a guard adapted to call the attention of the operator of the handle to the position of the signal, the guard comprising a body, a spring normally holding the body in engagement with the signal-handle, and the said body being provided with hooks adapted to serve as a file for train-orders and the like, substantially as described.

6. The combination, with a signal-handle, of a guard adapted to call the attention of the operator to the position of the signal, the said guard consisting of a body having pivotal connection with the handle, a spring serving normally to hold the body of the guard against the grip portion of the handle, a pawl carried by the aforesaid body, means for operating the said pawl, and a keeper carried by the signal-handle and arranged to receive the pawl when the guard is elevated or carried from the signal-handle, as specified.

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