

(No Model.)

W. W. McLELLAN.

APPARATUS FOR OPERATING SEMAPHORE SIGNALS.

No. 285,497.

Patented Sept. 25, 1883.

Fig. 1.

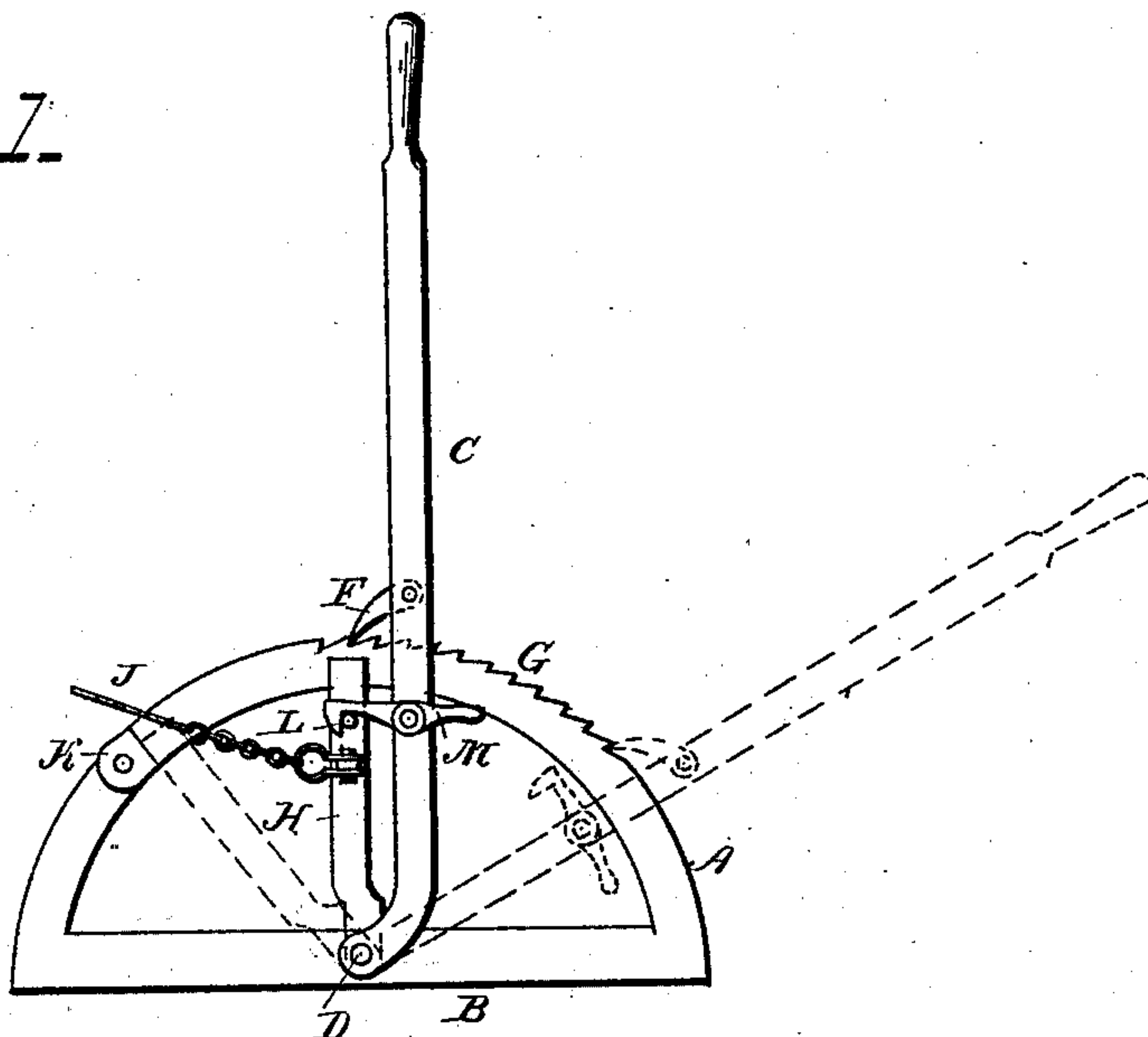
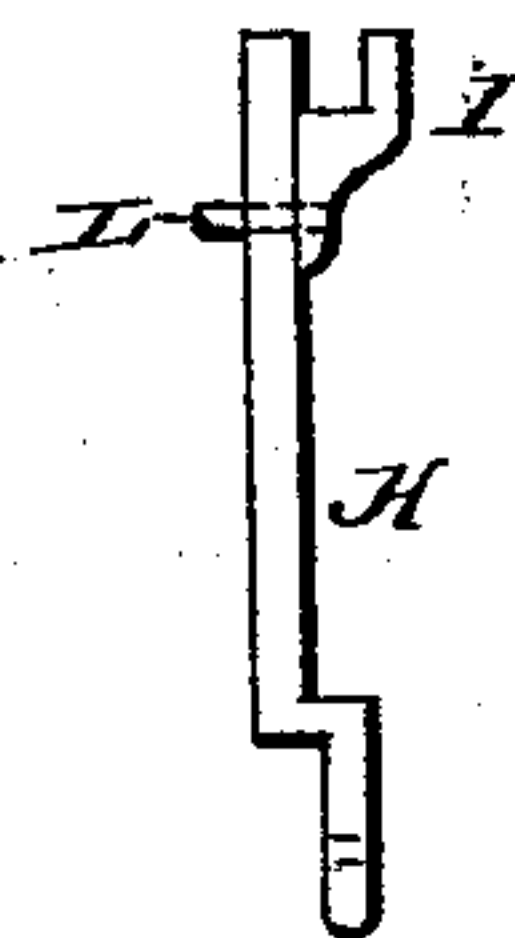


Fig. 2.



Fig. 3.



WITNESSES

*F. L. Ourand.*  
*J. R. Sittell*

*Wm. W. McLellan,*  
INVENTOR

by *C. Snow & Co.*

Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM W. McLELLAN, OF NEW CASTLE, NEW BRUNSWICK, CANADA.

## APPARATUS FOR OPERATING SEMAPHORE-SIGNALS.

SPECIFICATION forming part of Letters Patent No. 285,497, dated September 25, 1883.

Application filed April 14, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. McLELLAN, a subject of the Queen of Great Britain, residing at New Castle, in the county of Northumberland and Province of New Brunswick, Dominion of Canada, have invented a new and useful Apparatus for Operating Semaphore-Signals, of which the following is a specification, reference being had to the accompanying  
10 drawings.

This invention relates to semaphore-signals for railroads and other purposes; and it consists in certain improvements in the mechanism for operating such signals, whereby the  
15 utmost promptness and reliability of action shall be secured, in connection with cheapness and simplicity of construction, as will be hereinafter fully described, and particularly pointed out in the claims.

20 In the drawings hereto annexed, Figure 1 is a side view of my improved operating mechanism for semaphore-signals. Fig. 2 is a front view of the main or hand lever, and Fig. 3 is a front view of the operating-lever.

25 The same letters refer to the same parts in all the figures.

30 A in the drawings represents a curved or segmental bar, mounted upon a base, B, which forms the diameter of the circle of which the curved bar A is the segment.

35 C is a hand-lever, pivoted upon a bolt, D, centrally to the base-bar B, and having a keeper, E, which embraces the curved bar A. Between the keeper E and the body of the hand-lever is pivoted a pawl, F, engaging teeth or ratchets G, formed upon a portion of the segment-bar A.

40 H is the operating-lever, which is pivoted upon the same bolt, D, as the hand-lever, and provided with a keeper, I, embracing the segment-bar, so as to insure steadiness of action. The operating-lever is connected by a cord or chain, J, with the semaphore-signal, which, however, is not shown in the drawings. The  
45 segment-bar is provided, near its front end, with a buffer, K, of rubber or other suitable material, to arrest the forward movement of the operating-lever. The latter is provided, near its upper end, with a laterally-projecting stud, L, adapted to be engaged by a foot-pawl, M, pivoted to the side of the hand-lever C.  
50

The operation of my invention will be readily understood from the foregoing description

taken in connection with the drawings hereto annexed. By means of the hand-lever the operating-lever may be adjusted to various position, thus causing the semaphore to indicate various signals, which have been previously determined upon. By releasing the operating-lever from the foot-pawl it is caused to fly forward in contact with the buffer and the semaphore caused to drop, which usually indicates the "danger" signal. From this position the operating-lever may be again brought back by means of the hand-lever. The action of this device is under all circumstances prompt and reliable, and there is no complicated mechanism to get out of order.

This device is particularly adapted to be used in connection with the semaphore for which Letters Patent of the United States, No. 274,212, was granted to myself on the 20th day of March, 1883; but it may also be used in connection with other and differently-constructed semaphoric signals.

I claim and desire to secure by Letters Patent of the United States—

1. As an improvement in mechanism for operating semaphore-signals, the combination of the partially-toothed segment-bar mounted upon a suitable base, a centrally-pivoted hand-lever having a pawl engaging the toothed segment-bar, and a keeper embracing the said bar, a centrally-pivoted operating-lever having a keeper embracing the segment-bar and a laterally-projecting stud, a foot-pawl pivoted to the hand-lever and engaging the said stud, and a cord or chain connecting the operating-lever with the semaphore, all arranged and operating substantially as and for the purpose set forth.

2. The combination of the toothed segment-bar having a buffer near its front end, an operating-lever connected with the semaphore and having a laterally-projecting stud, and a hand-lever having a foot-pawl engaging the said stud, and provided with a pawl engaging the toothed segment-bar, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM WILKISON McLELLAN.

Witnesses:

WM. FERRIS,  
R. A. LAWLOR.