

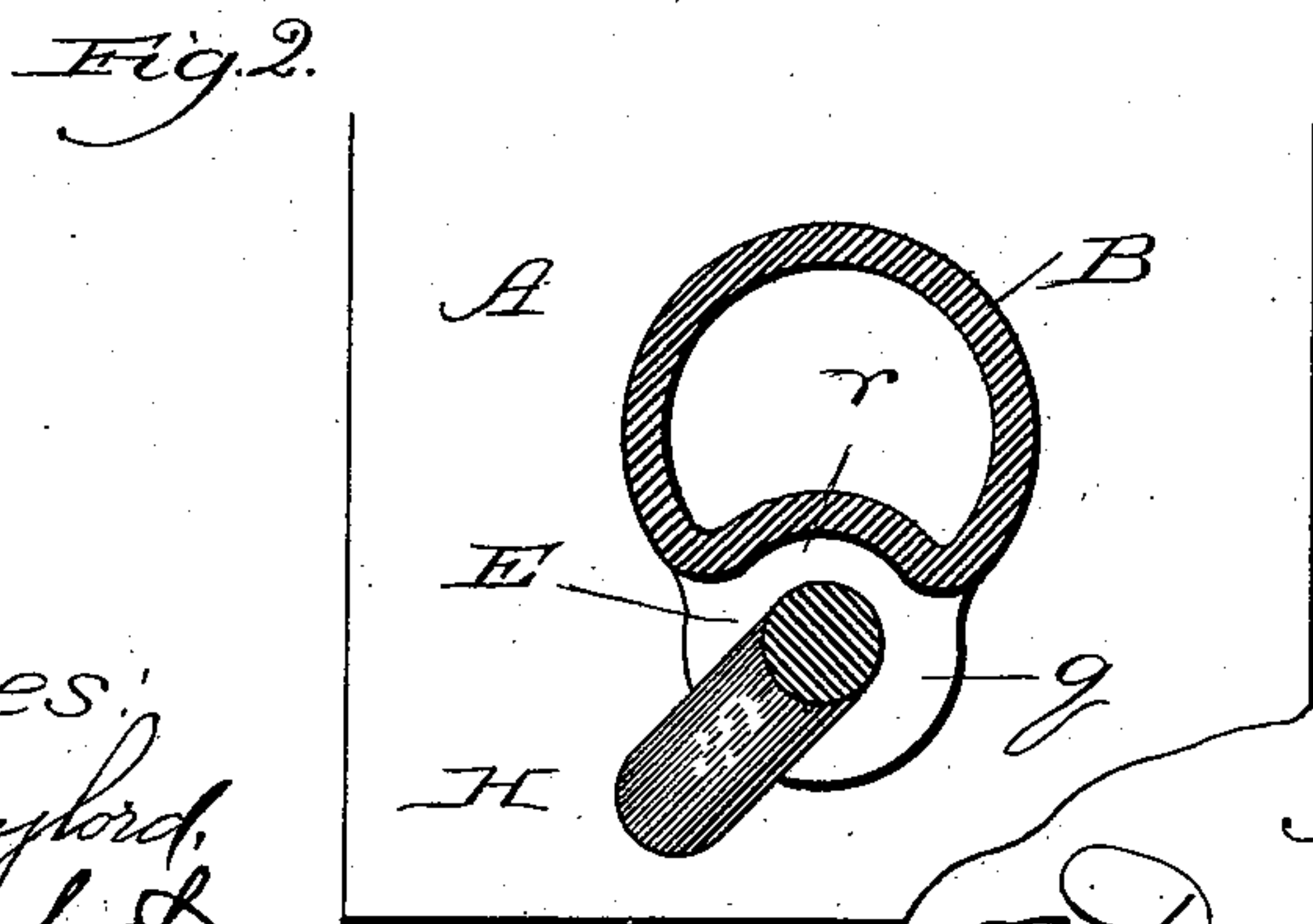
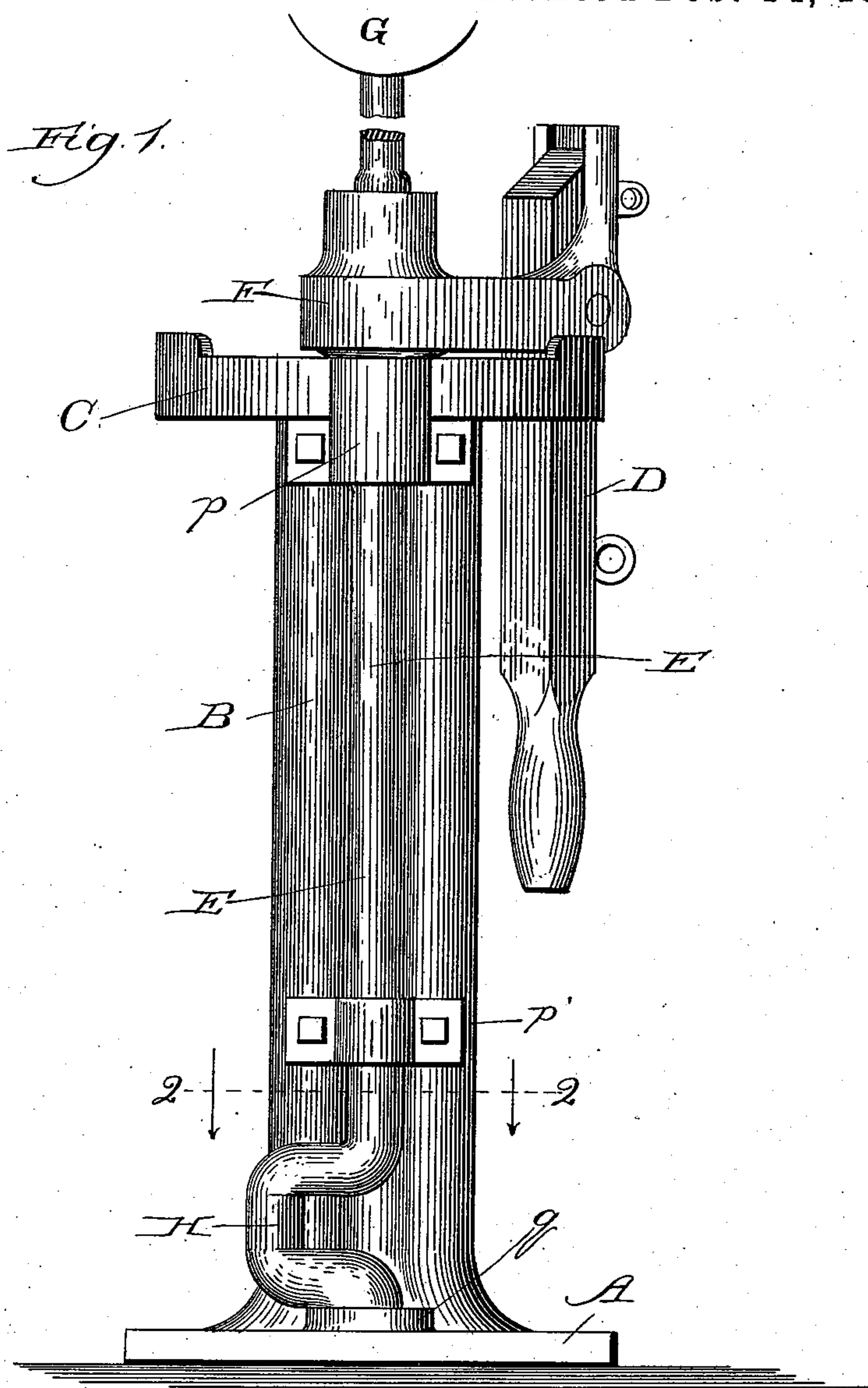
(No Model.)

A. A. STROM.

SWITCH STAND.

No. 378,024.

Patented Feb. 14, 1888.



Witnesses:
Chas. E. Gaylord,
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UNITED STATES PATENT OFFICE.

AXEL A. STROM, OF AUSTIN, ILLINOIS.

SWITCH-STAND.

SPECIFICATION forming part of Letters Patent No. 378,024, dated February 14, 1888.

Application filed July 22, 1887. Serial No. 244,971. (No model.)

To all whom it may concern:

Be it known that I, AXEL A. STROM, a citizen of the United States, residing at Austin, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Switch-Stands, of which the following is a specification.

My invention relates to an improvement in the class of switch-stands in which there is a standard portion on a base, a vertical spindle having a crank at its lower end for connection with the switch-rails, a lever connected with the spindle, and a semaphore or target operated from the spindle.

The object of my present invention is to provide an improvement upon a construction of switch-stand known to me, and involving a cog-wheel on the crank-spindle in mesh with another cog-wheel on the separate target or semaphore spindle, the last-named cog-wheel being of a certain diameter smaller than the other, whereby, with each throw of the switch, the target will be turned around the proper distance to display the desired signal.

My improvement combines all the advantages incident to the construction of stand thus referred to, with many of the advantages afforded by the construction of switch-stand set forth in my pending application for Letters Patent of the United States, Serial No. 233,379, filed April 2, 1887.

A further object is to provide a switch-stand of simpler and much cheaper construction than either of those referred to, and the construction of which shall afford peculiar features tending to enhance its durability.

In the drawings, Figure 1 shows my improved switch-stand in elevation, partly broken; and Fig. 2 is a section taken on the line 2 2 of Fig. 1 and viewed in the direction of the arrows.

A is a flat metal base carrying a vertical metal standard or column, B, grooved hollow, as shown, and longitudinally on one side, as shown at *r*, and a socket, *q*, is provided on the base in front of the lower end of the groove *r*. The column is surmounted by a rigid table, C, comprising a segment or portion of a disk having peripheral notches at the extremity of each throw, to receive and hold the drop-lever D, connected with the spindle E by means of a

yoke, F, upon the spindle. A guide-bearing, *p*, having a central opening, is secured to the column, as shown, to the side thereof having the groove *r* and near the flat edge of the table C, through which guide-bearing and the yoke F the spindle extends from the base A beyond the upper end of the stand, where it carries the target or semaphore G. The spindle at its lower extremity ends in a double crank, H, the end of which has its bearing in the socket *q*, and a guide-bearing, *p'*, forming a third bearing for the spindle, surrounds it just above the crank H, and is secured to the column B.

If desired, the guide-bearing *p* may be a part of the table, extended from the latter for its purpose, though I prefer to construct it as shown and described.

It will be understood that the bar connecting the switch-rails with the spindle is attached at one end to the crank H, which, when double, as shown, and having a rigid bearing at its extremity, is much stronger than a single crank, particularly when unprovided with a lower rigid bearing, as commonly constructed. A single crank, however, when working in a rigid bearing, *q*, may be used with advantage.

There being comparatively few parts to my improved stand, the cost of its manufacture is small, especially by comparison with either of those referred to as being improved upon by the present device, and there being nothing intricate about the construction, and all the parts being solid as to their connection, it possesses a degree of durability which will enable it to withstand the hardest usage to which it can be subjected as a switch-stand.

The purpose of grooving the column, as described, is to bring the spindle as near as possible to the center of the column, thereby to strengthen the stand and decrease the diameter of the table without requiring the column to be cut or provided with a longitudinal opening to receive the spindle.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a switch-stand, the combination, with the spindle and table, of a vertical column, B, having a longitudinal groove, *r*, to receive the spindle, substantially as and for the purpose set forth.

2. In a switch stand, the combination of a vertical column, B, having a longitudinal groove, *r*, and provided with a flat base, A, carrying a rigid bearing, *q*, a table, C, upon
5 the column, a rotatory spindle, E, extending outside the column beyond the upper end of the same to form the target or semaphore rod, and having a crank, H, at its lower end working in the bearing *q*, and a lever, D, connected with the spindle, substantially as described.

AXEL A. STROM.

In presence of—

J. W. DYRENFORTH,
CHAS. E. GAYLORD.