

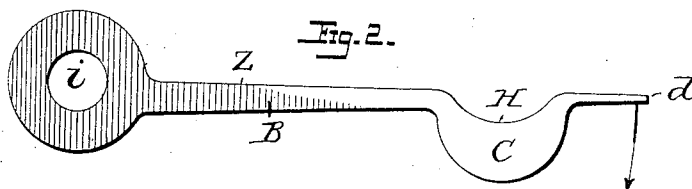
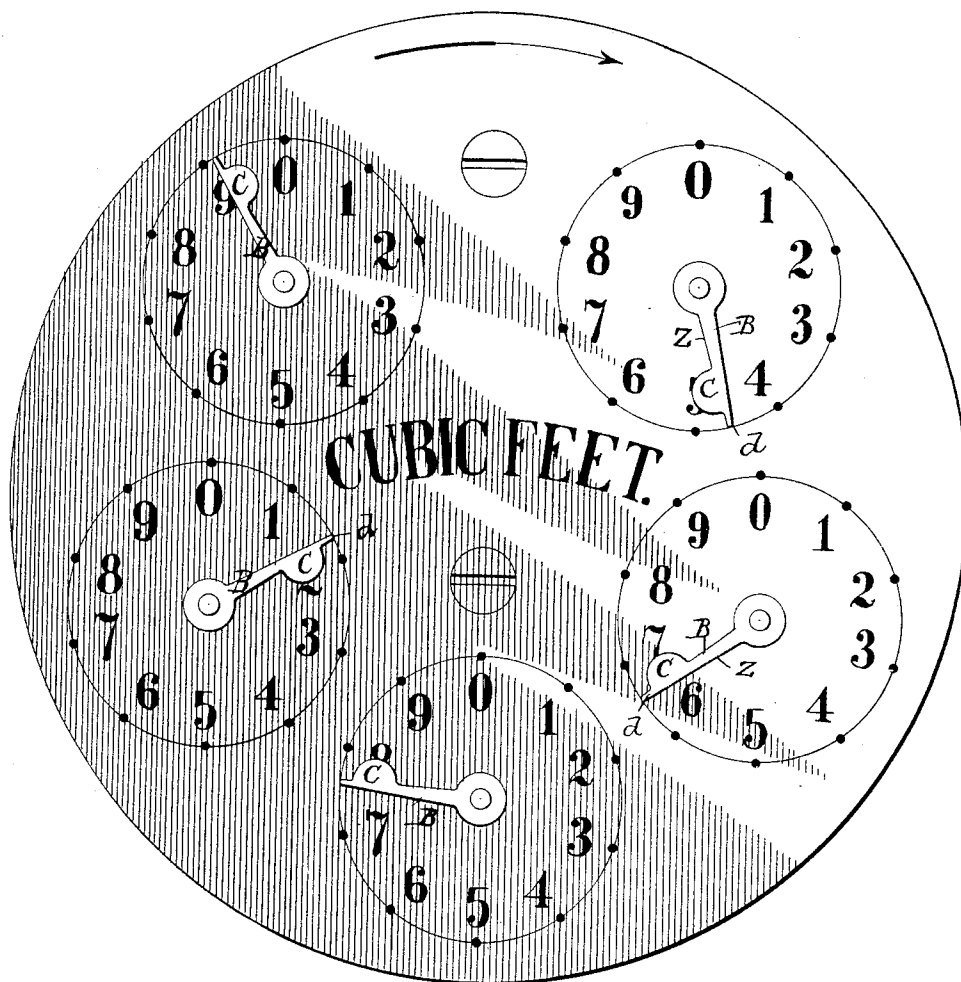
(No Model.)

R. CARTWRIGHT.
INDEX HAND FOR COUNTING REGISTERS.

No. 476,129.

Patented May 31, 1892.

Fig. 1.



Witnesses
Prof. G. Hinkel

H. S. McArthur

Inventor
Robert Cartwright
By *Foster Freeman*
Attorneys

UNITED STATES PATENT OFFICE.

ROBERT CARTWRIGHT, OF ROCHESTER, ASSIGNOR TO THE THOMSON METER COMPANY, OF NEW YORK, N. Y.

INDEX-HAND FOR COUNTING-REGISTERS.

SPECIFICATION forming part of Letters Patent No. 476,129, dated May 31, 1892.

Application filed October 15, 1891. Serial No. 408,818. (No model.)

To all whom it may concern:

Be it known that I, ROBERT CARTWRIGHT, of Rochester, county of Monroe, State of New York, have invented certain new and useful
5 Improvements in Index-Hands for Counting-Registers, of which the following is a specification, reference being had to the accompanying drawings.

This is an invention in the index hands or
10 pointers for the dials of counting-registers.

The object thereof is to lessen the liability of erroneously reading the indications of the several graduates of a register-dial.

In the drawings, Figure 1 is a general plan
15 view showing my improvement applied to the dial of a register, such as would be suitable for a meter; and Fig. 2 is a detached view, enlarged, of an index-hand, showing a modification therein.

20 When index-hands of any ordinary symmetrical pattern are applied to a counting-register, as they approach the figures upon the graduates, the figures being so advanced upon
25 are liable to be read when the unit of less value which precedes it should in fact be taken. I have found that this difficulty may be avoided by forming upon the advancing edge of each pointer B a projection C, adapted in its disposal and area to cover the figure to-
30 ward which the index-hand is progressing in advance of the actual coincidence of the extremity *d* of the pointer with the division-mark upon the graduate. Thus as the pointer rotates each unit of the graduate is first
35 eclipsed, and its exposure begins only after the indicating-point *d* of the hand is in registry with the proper division of the graduate.

As shown in Fig. 2, the following edge Z of the pointer may, with good effect, be projected radially from the center *i* of the index-
40 hand, except that opposite the projection a curved recess, as H, may be provided whereby to expose the figure more rapidly. The projection C in such instance would simulate the form of a lune or crescent. Hence it will
45 be seen that the hands or pointers of my present invention differ broadly from previous

practice in that they are unsymmetrical, the projections C traveling in advance of the radial edges Z. In other words, they are somewhat
50 as if the ordinary spade-faced hands—such as are used in clocks and watches—were longitudinally split through their least section, thereby producing two hands from each of
55 such a spade-faced hand, and in then applying the separate sections in such manner that their straight edges become the following sides with respect to the direction of their rotation. A contingent advantage of this system is that the lunar projections serve as a sight indica-
60 tion of the direction of motion, and that instructions for reading may be given in the tersest terms, such as "Read backward from the straight edges of the hands."

Without limiting myself to the precise ar-
65 rangement and terms herein shown and set forth, I claim—

1. In a counting-register, an index-hand the following edge of which is substantially straight or radial to the center of rotation of
70 the hand, while the advancing edge of the hand is provided with a lateral projection, substantially as described.

2. The combination, with the dial of a counting-register having indices thereon, of
75 the index-hands the following edges of which are substantially straight or radial to the center of rotation of the hands, while the advancing edges of the hands are provided with lateral projections adapted to eclipse the in-
80 dices in the direction toward which the pointers are traveling, substantially as described.

3. In a counting-register, an index-hand having one side practically straight and the other side provided with a lateral projection
85 adapted to eclipse the indices toward which it is traveling, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBT. CARTWRIGHT.

Witnesses:

JOHN THOMSON,
R. F. OSGOOD.