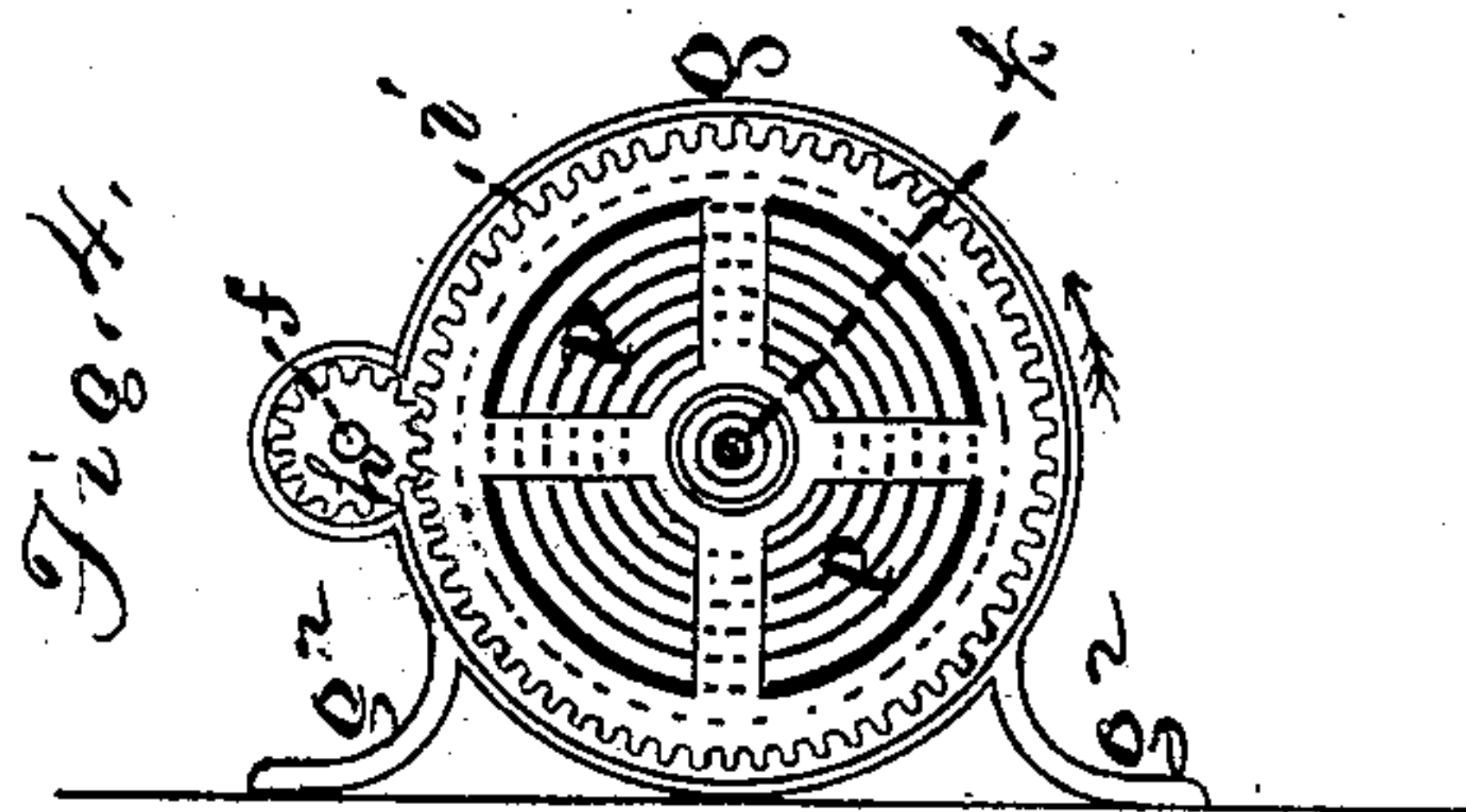
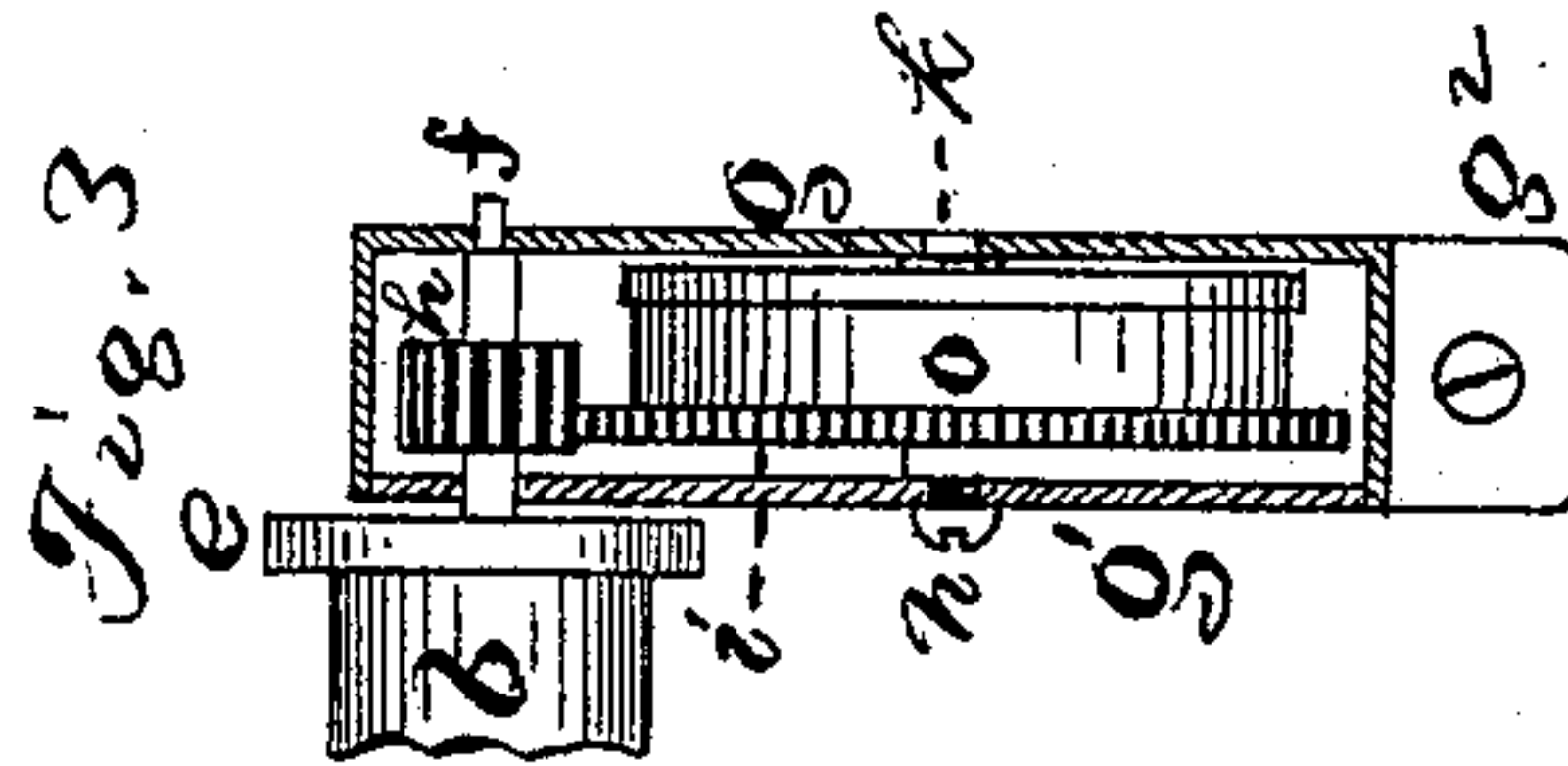
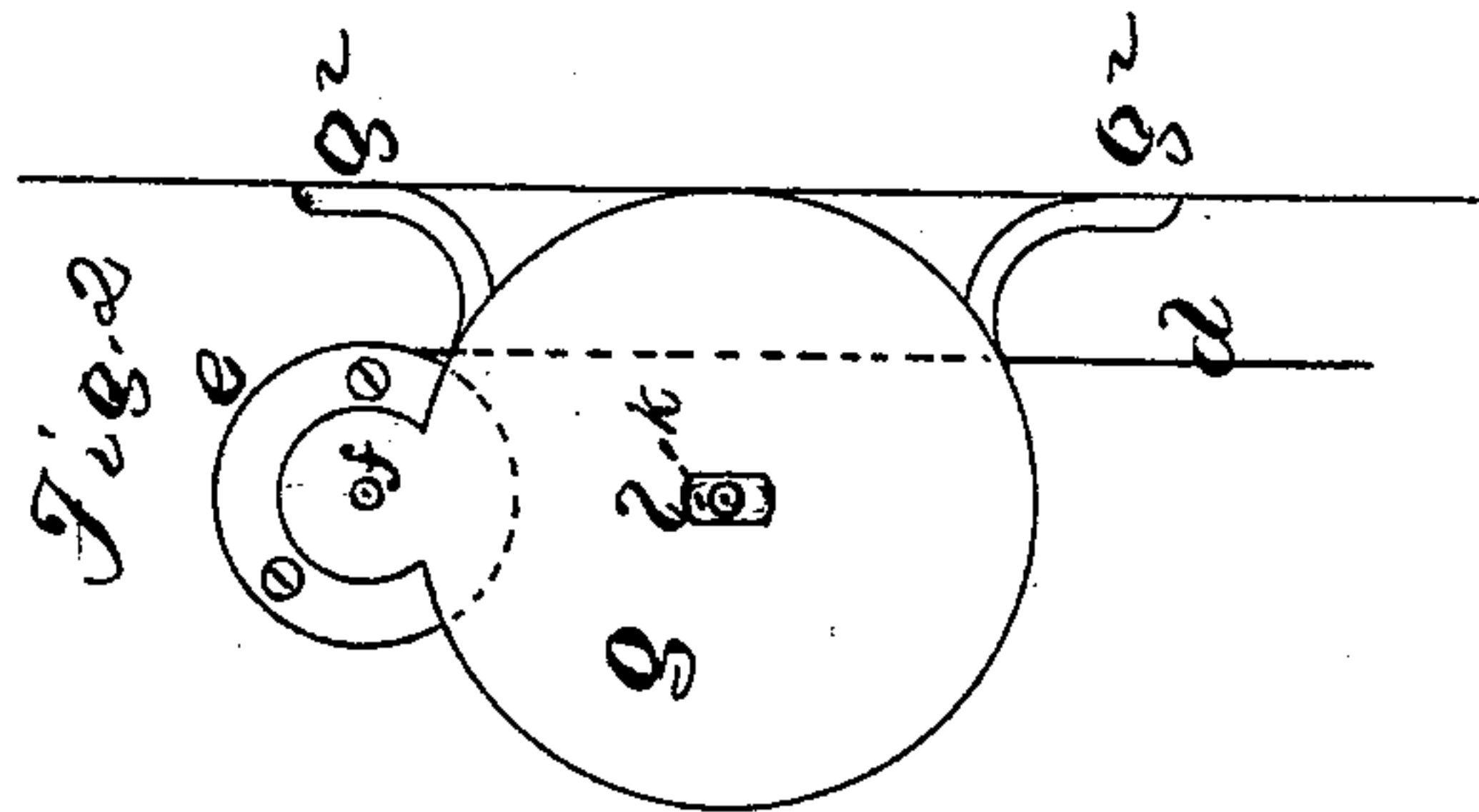
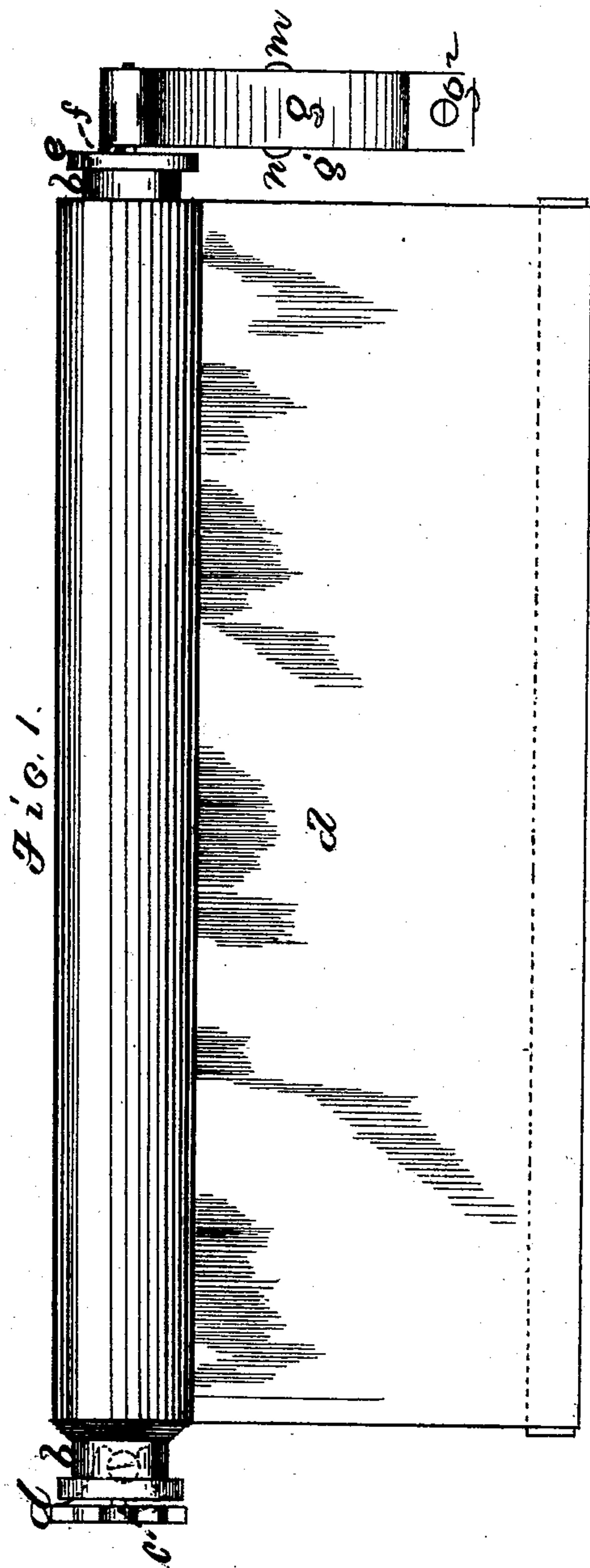


J. B. FISH.
Curtain-Fixtures.

No. 149,457.

Patented April 7, 1874.



Witnesses
T. E. Steele.
C. E. Mitchell

Inventor
James B. Fish
By Wm. E. Simonds
Att.

UNITED STATES PATENT OFFICE.

JAMES B. FISH, OF NEW BRITAIN, ASSIGNOR TO JOHN P. CONNELL, OF KENSINGTON, CONNECTICUT.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. 149,457, dated April 7, 1874; application filed October 21, 1873.

To all whom it may concern:

Be it known that I, JAMES B. FISH, of New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a front view of a curtain with the fixture attached. Fig. 2 is a side view of the outer side of the fixture, showing an edge view of the curtain. Fig. 3 is a view of the fixture with the outer casing cut in central vertical transverse section. Fig. 4 is a side view of the inner side of the fixture, with the covering-plate on that side removed so as to expose the interior construction.

The fixture is one of that class commonly called "loaded fixtures," their object and purpose being to so counterbalance the weight of the curtain that it will remain stationary at whatever height it is left, and so that the curtain will voluntarily rise upon lifting the rod in the lower end of the curtain.

The letter *a* denotes the curtain; *b*, the curtain-roll; and *c*, a common journal-pin, having a bearing in the bracket *d*. On the other end of the curtain-roll is a metallic cap or plate, *e*, having a central orifice, fitting upon the inner square end of the shaft *f*. The cap *e* readily comes off the end of the shaft *f*, but the orifice and the end of the shaft are other than round in shape, so that the curtain-roll and the shaft *f* shall always rotate together. The letter *g* denotes the hollow metallic shell containing the main operating parts of the fixture, having one or the other of the side plates (preferably the inner plate *g*¹) removable, so as to afford opportunity for placing in the operating parts. In the upper part of the case *g* is hung the shaft *f*, bearing within the case the pinion *h*, meshing into the gear *i*, loose upon the shaft *k*, one end of which shaft is other than round in shape, and fits into a correspondingly-shaped orifice, *l*, in one side of the case, so that this shaft is held from rotating. A screw, *m*, secures this shaft to the case, and a screw, *n*, secures the removable plate *g*¹ in place. To the side of the gear *i* is fixed the circular case *o*, having

within it a spring, *p*, like a common clock-spring, the inner end of which is fixed to the shaft *k*, and the outer end fixed to the case *o*, so that when the gear *i* is rotated in the direction indicated by the arrow, the spring is wound up.

When the parts are all put together, the curtain-roll is rotated in the proper direction to wind up the spring till the unwinding pressure of the spring counterbalances the weight of the curtain, when the curtain will remain stationary at any height at which it is left, and it will wind up on the roll by simply lifting the rod *r* in the lower end of the curtain. The case *g* is affixed to the casing of the window by screws driven through the feet *g*² *g*².

The mere combination of a shade-roll, pinion, gear, and coil-spring is, as I am aware, old. It is not this that constitutes my invention, which consists in a peculiar construction and combination of the case and the interior mechanism, whereby the case is made simple and cheap to manufacture, and readily taken apart and put together afterward for the purpose of repairs. The case is made in two parts—to wit, the body *g*, forming a cup, and the plate *g*¹, fitting within and closing the mouth of the cup. The shaft *k* is stationary, and does not rotate, one end of the coil-spring being fastened to it. One end of this shaft is other than round in shape, and fits into a corresponding hole in the side of the cup *g*, and a screw, *m*, driven into this end of the shaft secures the shaft to the case. Another screw, *n*, secures the plate *g*¹ to the shaft, thus forming a very simple and cheap fastening for the case, making use of the shaft for a cross-bar, and making it serve the double or triple purpose of a cross-bar for the case, a shaft for the large gear, and a shaft and point of attachment for the coil-spring; and this makes a case which can afterward be taken apart by any person, even if not a mechanic, for the purpose of repairs. The making of the shaft stationary instead of rotary is essential to this construction.

I claim as my invention—

1. The combination of the case or cup *g*, the plate *g*¹, the fixed shaft *k*, screws *m* *n*, and loose gear *i*, provided with the circular case

o, all arranged and designed for operation and use substantially as shown and described.

2. The combination of the fixed shaft *k*, loose gear *i*, provided with the circular case *o*, spring *p*, pinion *h*, shaft *f*, and the shade-roller, all arranged and designed for operation

and use substantially as shown and described.

JAMES B. FISH.

Witnesses:

WM. E. SIMONDS,
JOHN P. CONNELL.