

No. 753,998.

PATENTED MAR. 8, 1904.

J. C. MOORE.

DOOR SPRING.

APPLICATION FILED SEPT. 18, 1903.

NO MODEL.

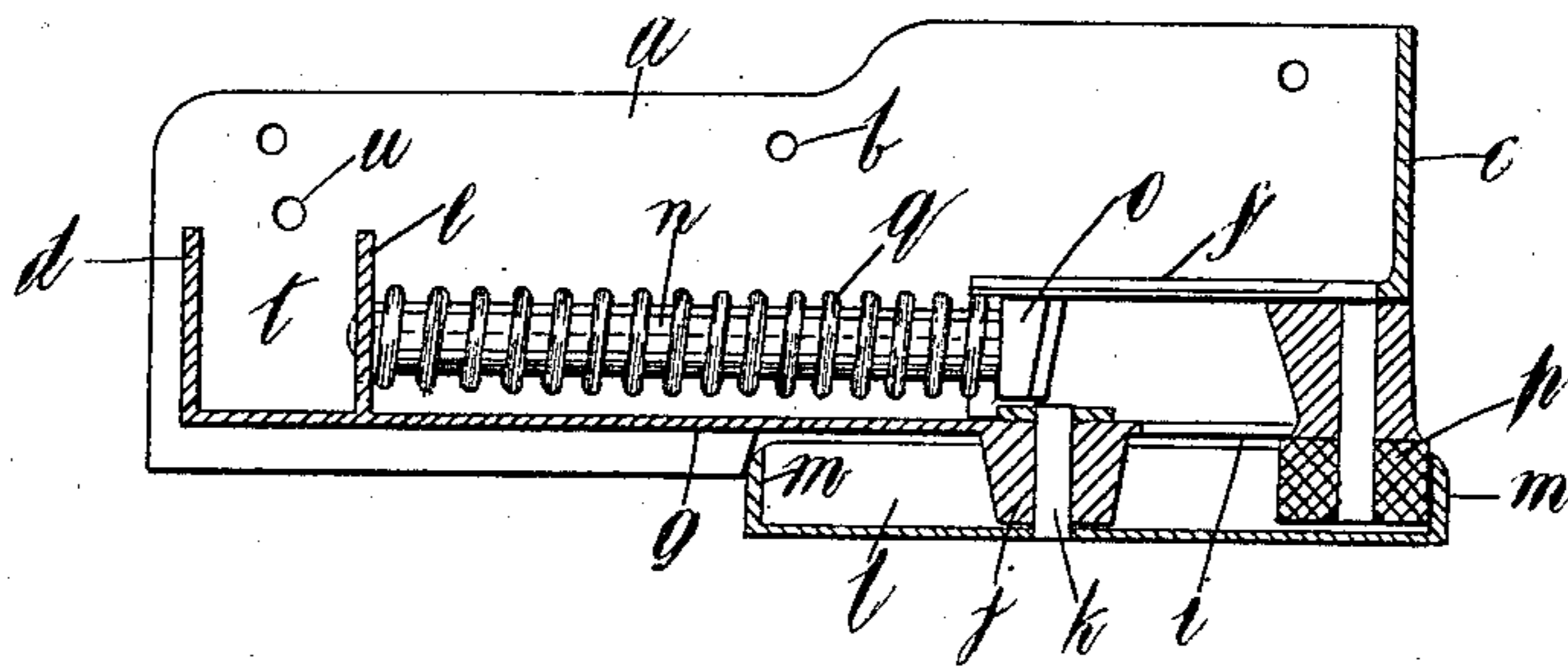


Fig 1

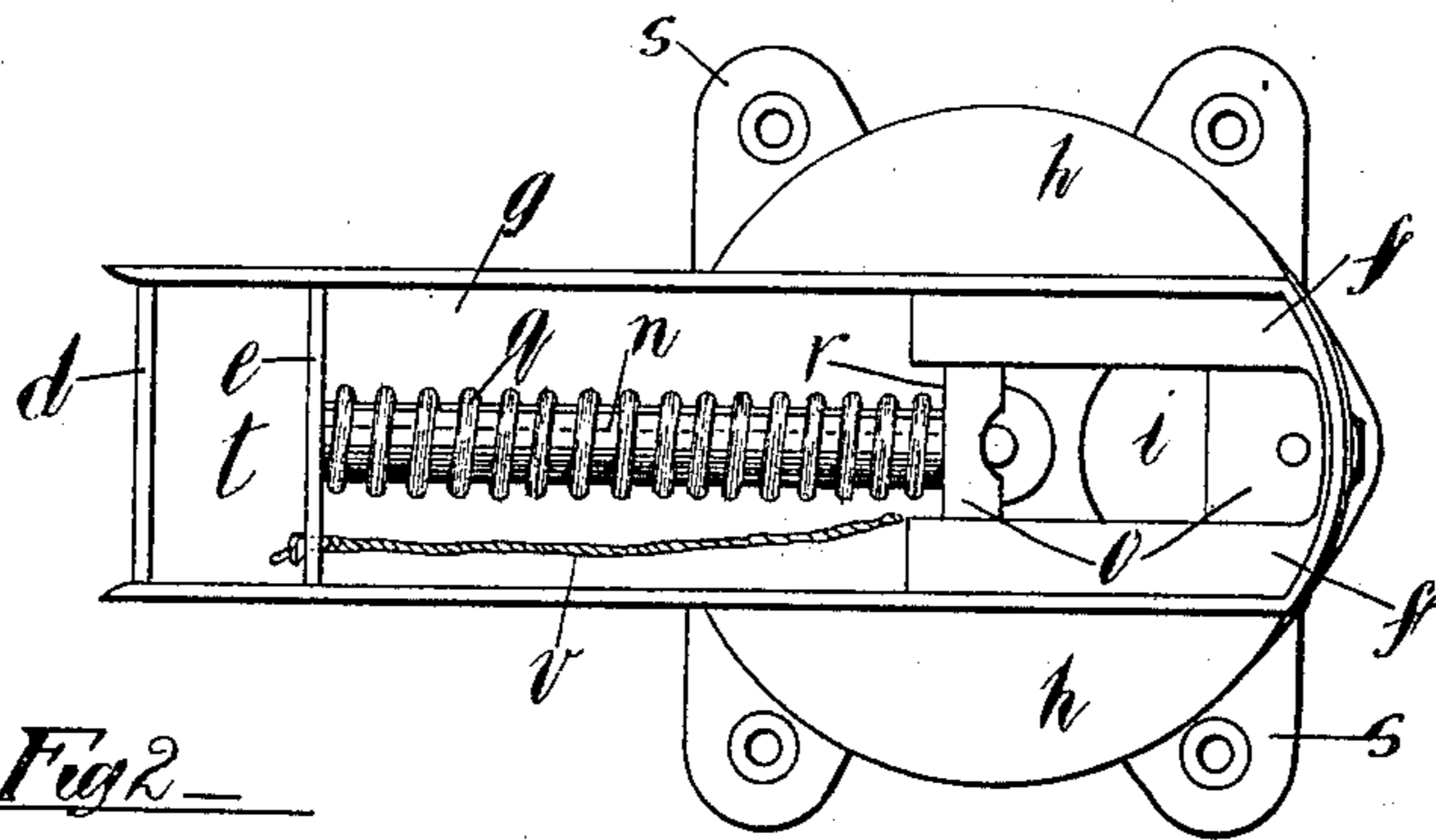


Fig 2

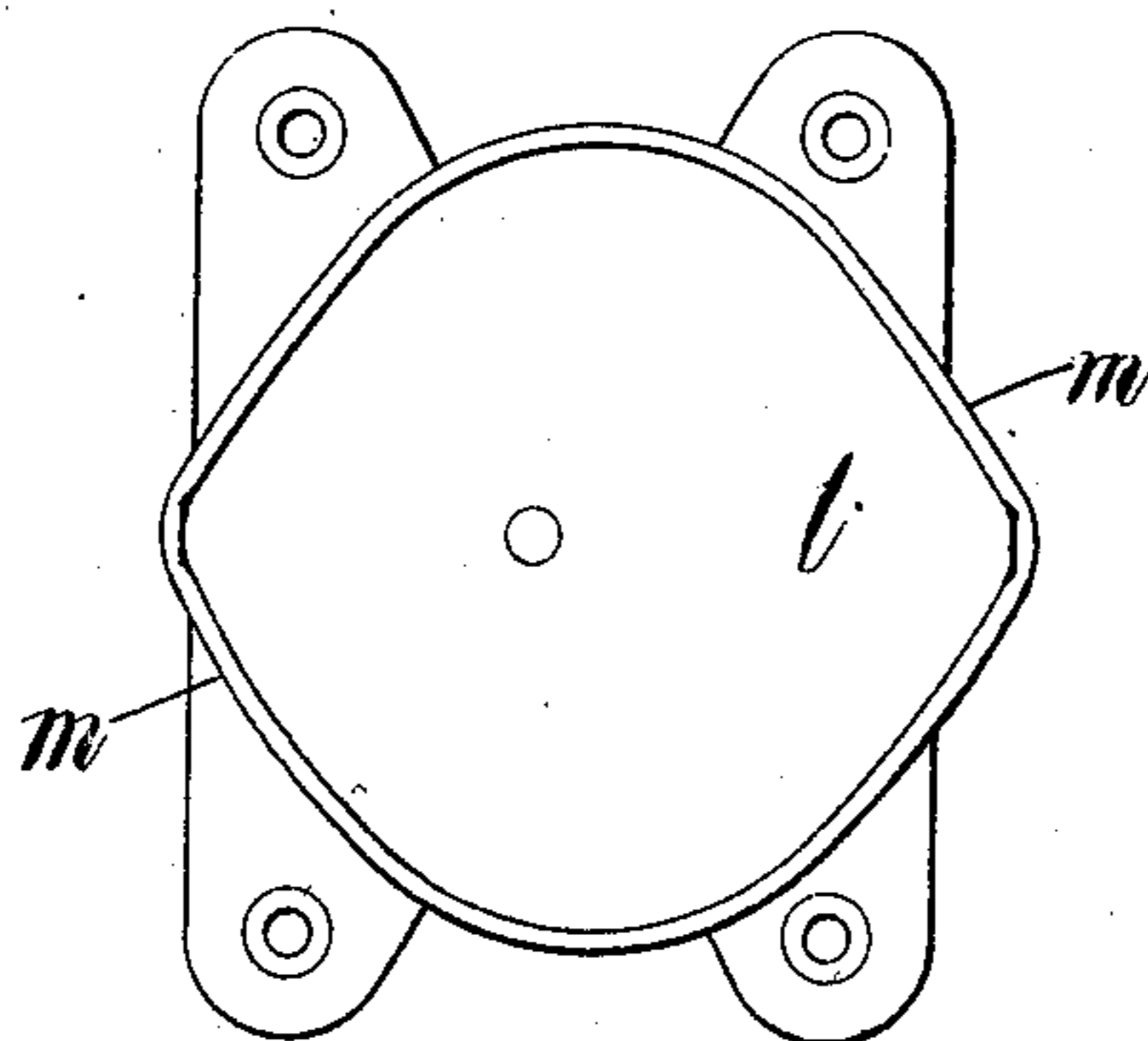


Fig 3

Witnesses

William Crossley

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per

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UNITED STATES PATENT OFFICE.

JOHN CRAWFORD MOORE, OF LOWER EDMONTON, ENGLAND.

DOOR-SPRING.

SPECIFICATION forming part of Letters Patent No. 753,998, dated March 8, 1904.

Application filed September 18, 1903. Serial No. 173,689. (No model.)

To all whom it may concern.

Be it known that I, JOHN CRAWFORD MOORE, a subject of the King of the United Kingdom of Great Britain and Ireland, residing at Nightingale Hall, Lower Edmonton, in the county of Middlesex, England, have invented new and useful Improvements in Door and Gate Springs, of which the following is a specification.

This invention relates to improvements in door and gate springs, the object being to provide means for allowing the door or gate to be opened in one or both directions and to prevent their closure with violence. This end I achieve by means illustrated in the accompanying drawings, wherein—

Figure 1 is a longitudinal section; Fig. 2, a plan of the complete apparatus, and Fig. 3 a plan of a detail.

I provide a trough-like corner-piece *a*, which can be attached to the bottom corner of the hanging stile of the door by screws passed through holes *b*. The corner-piece *a* is closed at each end, as at *c* and *d*, the end *c* being preferably higher than *d*. Near the end *d* is a cross-partition *e* and at the other end are two ledges *f*, above and parallel with the bottom *g* of the said trough-like piece *a*. The said bottom *g* is expanded at one end into side plates *h* and at the same end is an open-ended slot *i*. Below the bottom *g* is a lug *j* near the inner end of the slot *i*, and this lug works on a pin *k*, upstanding from an eccentric plate *l*, having a surrounding upstanding rim *m*. Within the trough is a spindle *n*, one end of which is free to move to and fro in a hole in the partition *e*, the other end being provided with an open central cross-head *o*, which slides under the ledges *f*. The outer end of the cross-head carries on its under side a roller *p*, which is kept in running contact with the inside of the rim *m* by a spiral spring *q*, encircling the spindle *n* and having one end in contact with the partition *e* and the other with the shoulder *r*, formed by the junction of the

cross-head *o* with the spindle *n*. Ears *s* are provided on the eccentric plate *l* and furnished with screw-holes to enable it to be attached to the floor. The space between the partition *e* and the end *d* forms an oil-chamber *t*, which can be charged through the hole *u*. Oil is conveyed from the chamber *u* to the cross-head *o* by a wick *v*, and any drippings by the cross-head pass into the eccentric plate *l* through the slot *i*.

The operation is as follows: When the door or gate is in its closed position, the roller is on the longer diameter of the eccentric plate, in which position the spring normally keeps it. When, however, the door or gate is pushed open, the roller coming in contact with the approaching sides of the rim of the plate causes the spring to be compressed, and when the door is released the spring in recovering its normal position will gradually shut the door or gate.

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

In a door or gate spring the combination of a trough-like corner-piece to attach to a corner of the door or gate: a spring-controlled spindle free at one end to slide through a partition near one end of the trough: a cross-head at the opposite end of the spindle free to slide under guides and carrying a roller below the bottom of the trough and free to move in an open-ended slot provided in the bottom of the trough: a bottom plate having an upstanding eccentrically-planned rim and an upstanding pin on which can turn the trough-like corner-piece so that the roller always remains in contact with the said rim, substantially as hereinbefore described.

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

JOHN CRAWFORD MOORE.

Witnesses:

JOSEPH CHARLES QUIBELL,
MARCEL HUE DE LA COLOMBE.