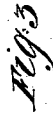


Trunk Hinge.

Patented Nov. 5. 1867.



Witnesses

Inventor:

United States Patent Office.

ANTONIO L. MORA, OF NEW YORK, N. Y.

Letters Patent No. 70,597, dated November 5, 1867.

IMPROVED HINGE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ANTONIO L. MORA, of the city, county, and State of New York, have invented a new and improved Combination Hinge; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to a new and improved device for supporting in any required position the covers of trunks, chests, desks, boxes, and all articles of similar construction; and the invention consists in combining with a hinge or butt (similar to those used on the articles mentioned) a plate-pawl and a spring acting thereon; and a circular-slotted ratchet-wheel is attached to and drawn up when the said cover is raised, and which is held in place by the spring and pawl, which are attached to the body or stationary portion of the trunk or other article, as will be hereinafter more fully described.

The drawings, figs. 1, 2, and 3, represent the combined hinge, with the ratchet and cover standing in different positions.

Figure 1 represents the cover raised in an upright position, with the pawl thrown out of gear with the ratchet, it being, when in this position, ready to descend or to be closed.

Figure 2 represents the cover raised to nearly an upright position, and held in that position by the pawl.

Figure 3 represents the cover nearly closed, and with the pawl about to be adjusted, so as to engage with the ratchet when the cover is again raised.

Similar letters of reference indicate corresponding parts.

To each part of the hinge there is a plate attached, which, with the parts of the hinge, are attached to the trunk. The plate which is attached to the cover draws up and controls the ratchet. The part which is fastened to the body of the trunk has the spring and pawl attached to it, and the ratchet, as the cover is closed, slides down in contact with the stationary plate. As seen in the drawing, these plates which are attached to the parts of the hinge and trunk are marked A and B. A is fastened to the body and B to the cover, both to the end of the trunk, or one hinge thus formed at each end. C is the ratchet; D is the pawl; E is the spring which acts upon the pawl; F is a stop-plate, which is fast to A. The pawl D is in the form of a plate, the corners of which form different angles, as seen in the drawing. The angle *a* engages with the ratchet. As seen in fig. 2, the spring E is pressing the pawl against the ratchet, and engaging the angle *a* with its teeth. The spring has an eye or coil at its end, as seen at *e*, which, as the cover is raised, slips over the angle *d* of the pawl, and bears upon its side *e*, thus throwing it out of gear with the ratchet-teeth, and holding its lower edge in contact with the stop-plate F. The pawl is kept in this position until the cover is nearly closed, as seen in fig. 3. *f* is a pin, which is on the plate B, which, as the cover descends, strikes the pawl, as seen in fig. 3, thereby forcing the angle *a* down and the angle *d* up past the spring *e*, thus bringing the spring to bear against the pawl on the side *g*, thereby forcing the point *a* against the ratchet, and so that it will engage with the teeth when the cover is again raised. *h* is a pin in the pawl, which works in a curved slot in the edge of the plate A, by which the pawl may be pressed back from the ratchet when desired. The ratchet is circular in form, as seen in the drawing, with a circular slot in it marked *z*. J is a screw-headed pin attached to the plate A. This pin-head holds the ratchet to the plate, and guides it as it slides up and down on the plate. The ratchet is attached to the plate B by a pin at K.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The pawl D and the spring E, constructed, arranged, and operating substantially as and for the purposes described, in combination with a ratchet hinge.
 2. I claim the pin *f*, by which the pawl is tripped, substantially as described, in combination with the pawl D.
 3. In combination with the pawl D, I claim the ratchet C and the stop-plate F, substantially as described.
 4. In combination with a hinge, I claim the plates A and B, substantially as and for the purposes described.
- The above specification of my invention signed by me this 27th day of July, 1867.

ANTONIO L. MORA.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.