No. 653,018. Patented July 3, 1900.

G. W. CLUM.

SPRING HINGE.

(Application filed Feb. 23, 1900.)

(No Model.)

Fig. 1

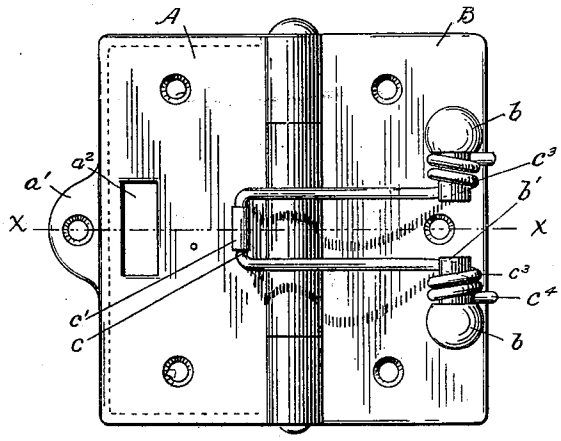


Fig. 2

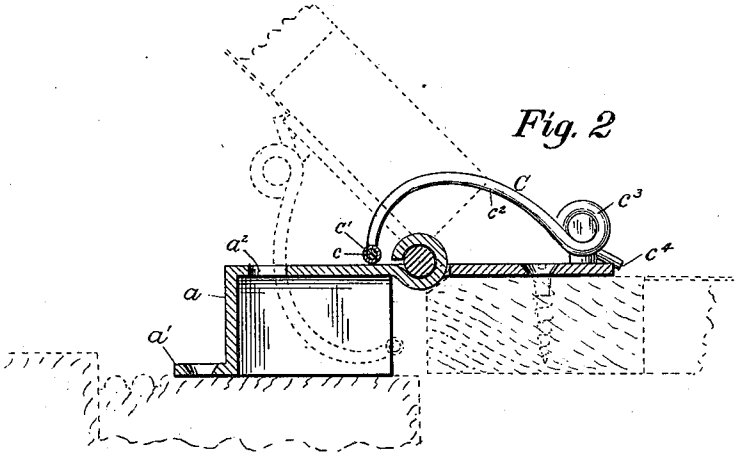
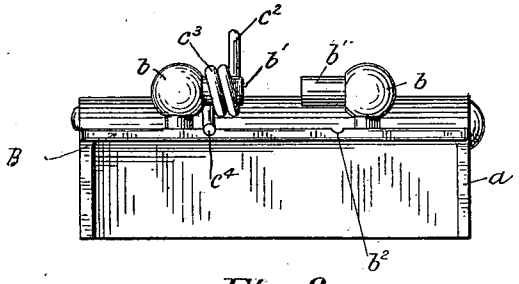


Fig. 3



WITNESSES:

Thos. E. French

John E. Burch.

INVENTOR

George W. Clum.

BY

Finckel & Finckel

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. CLUM, OF COLUMBUS, OHIO.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 653,018, dated July 3, 1900.

Application filed February 23, 1900. Serial No. 6,253. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CLUM, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Hinges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my present invention is to provide an improved hinge of simple and economical construction which when fitted to place will hold the door, gate, or other structure yieldingly closed and which when the door is opened will hold the door in a number of different positions. Such a hinge is called in the market a "holdback-hinge."

The invention consists in the features defined by the claims appended to the following description.

In the accompanying drawings, showing one embodiment of my improvements, Figure 1 is a plan view. Fig. 2 is a sectional view taken on a plane indicated by the line $x\,x$, Fig. 1. Fig. 3 is a view looking toward the right-hand edge of Fig. 1, parts being omitted.

The form of hinge shown is one especially adapted to screen or other supplementary doors.

Like characters of reference on the several views designate corresponding parts.

The leaf or member A is made with a peripheral flange a, that forms on the rear face thereof a hollow or box-like cavity. This member A is also made with screw-holes and, if deemed expedient, with an ear a' projecting from the base of the flange a, said ear being also provided with a screw-hole. As this ear a' is cast with the leaf and flange, it may be easily knocked off should there be no room for it on the door-frame or other place to which it is to be applied. The leaf or member A is also formed with an opening a^2.

The leaf or member B is connected with the leaf A by means of a pintle or other device in any of the usual ways. This member B is also provided with suitable screw-holes. Cast on the leaf or member B are short standards or posts b, from which project short pins b' to receive the coils of a spring C. This spring C is preferably formed of stiff wire bent at its middle to form a straight portion c (to receive a small roller c') and from that the curved arms c^2 and coils c^3. The extremities c^4 of the spring are preferably left straight to engage and rest in small notches b^2 in the leaf or member B. (See Fig. 3.) The spring C can be applied by compressing the arms thereof and placing the coils opposite the ends of the pins b', when upon releasing the arms the coils will spring onto the pins, the extremities finding their seats in the notches b^2.

The arms c^2 are of such length and curve that the end of the spring or the roller c' shall press with considerable force upon the leaf A and tend to close the door or hold it closed; but when the door is opened, say, about halfway the end of the spring will enter the opening a^2 and the inner sides of the arms c^2 will frictionally engage the edge of the opening and hold the door in any position to which it may be further opened, as indicated by dotted lines, Fig. 2.

The flange a on the leaf or member A may be omitted and the plain member supported at its ends upon blocks set slightly asunder to afford space for the access of the spring C through the opening a^2. The roller c' may also be omitted. Other variations can also be made without departing from the scope of the invention.

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

1. A hinge comprising a member having a cavity or recess on its under side and an opening from the face thereof into said cavity, and a second leaf or member swinging on the first-mentioned member, in combination with a curved spring attached to said second leaf or member adapted to enter said cavity or recess through said opening and frictionally engage the edge thereof to hold said second member, or a door attached thereto in any position to which it may be adjusted while the spring is in said cavity or recess, substantially as described.

2. A hinge comprising a leaf or member having an opening, and a second leaf or member swinging on the first-mentioned member in combination with a curved spring attached to said second leaf or member arranged to

enter said opening to hold the door open and to engage the face of the leaf or member to close the door, substantially as described.

3. A hinge comprising a leaf or member having a depending peripheral flange *a* forming a box-like cavity, and an opening a^2 into said cavity, and a second leaf or member swinging on the first-mentioned member in combination with a curved spring secured to said second member and adapted to bear on the first-named leaf or member, and arranged to enter and engage a wall of said opening, substantially as described.

4. A hinge comprising a leaf or member having an opening therein near its outer edge, and a second leaf or member swinging on the first-mentioned member having pins b', in combination with a curved spring C made of bent wire and having curved arms c^2 and coils c^3 engaging the pins b' on the second leaf or member and adapted to bear upon the face of the first-named leaf and enter the opening therein, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. CLUM.

Witnesses:
GEORGE W. ALFRED,
GEORGE M. FINCKEL.