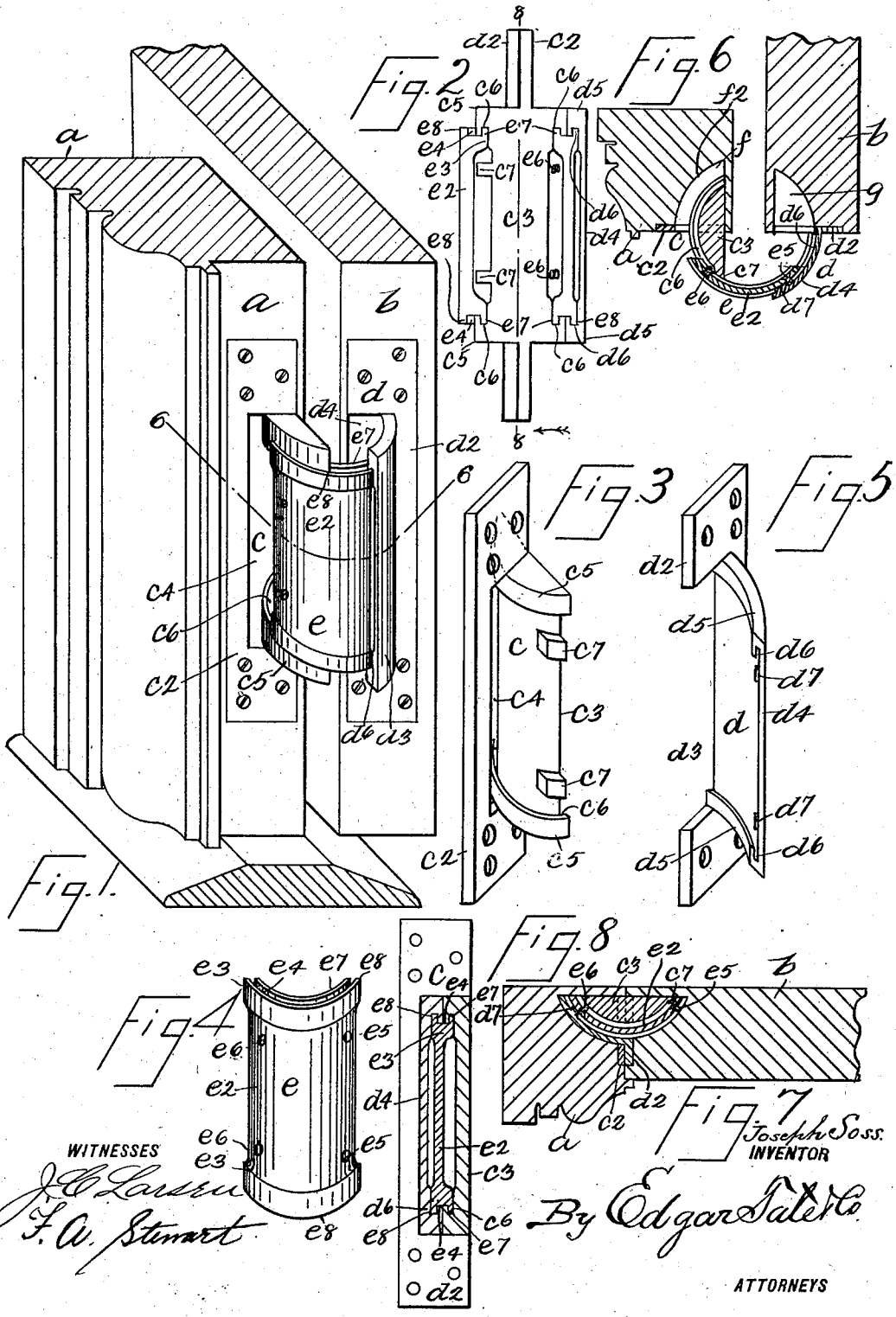
No. 746,398. PATENTED DEC. 8, 1903.

J. SOSS.

HINGE.

APPLICATION FILED MAY 13, 1903.

NO MODEL.



WITNESSES

J. B. Larsen

F. A. Stewart

Joseph Soss.
INVENTOR

By Edgar Tate & Co.

ATTORNEYS

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

No. 746,398. Patented December 8, 1903.

UNITED STATES PATENT OFFICE.

JOSEPH SOSS, OF NEW YORK, N. Y.

HINGE.

SPECIFICATION forming part of Letters Patent No. 746,398, dated December 8, 1903.

Application filed May 13, 1903. Serial No. 156,922. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SOSS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Hinges, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved hinge for doors, safes, pianos, scuttles, trap-doors, and the like, a further object being to provide a hinge of the class specified which is simple in construction and strong and durable and which will not get out of order or need repair, a further object being to provide a hinge of the class described which when the door or other article to which it is applied is closed is entirely concealed; and with these and other objects in view the invention consists in a hinge of the class specified constructed as hereinafter described and claimed.

This invention is an improvement on that described and claimed in United States Letters Patent No. 724,962, granted to me on the 7th day of April, 1903, and the invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a perspective view of a part of a door-frame and door provided with my improved hinge, the door being open; Fig. 2, a back view of the hinge detached and closed; Figs. 3, 4, and 5, perspective views of separate parts of my improved hinge; Fig. 6, a section on the line 6 6 of Fig. 1 and on a reduced scale; Fig. 7, a section on the same line, but showing the door closed; and Fig. 8, a section on the line 8 8 of Fig. 2.

In the drawings forming part of this specification I have shown at a part of a door-frame and at b part of a door, and in the practice of my invention I provide a hinge, which consists of three separate parts c, d, and e, and in practice the part c is secured to the door-frame and the part d to the door, while the part e is intermediate and connects the other two parts and supports the door.

The part c consists of an oblong plate c^2, provided at one side with a transversely-arranged oblong member c^3, which is plano-convex in cross-section, the flat or plane face thereof being at right angles to the plane of said plate and flush with one edge thereof, and at the back or convex side of the member c^3 is an open space c^4, which extends the full length of the said member, and at the ends of said member c^3 the back or convex side thereof is provided with segmental shoulders or bearings c^5, in which are formed grooves c^6, and at one edge of the member c^3 are formed lugs or projections c^7.

The part d, which is secured to the door, consists of a plate d^2, one edge of which is provided with an oblong open space d^3, at the back of which is a member d^4, which is segmental in cross-section and the ends of which are provided on their inner surfaces with segmental shoulders or bearings d^5, in which are segmental grooves d^6, and on the inner or concave side of said plate adjacent to its free edge are lugs or projections d^7.

The part e of the hinge consists of a plate e^2, which is segmental in cross-section and provided both at its upper and lower ends with thickened members e^3, in which are formed segmental grooves e^4, and the convex side of said plate e is provided with lugs or projections e^5 adjacent to one edge thereof, and the concave side thereof is provided with lugs or projections e^6 adjacent to the other edge thereof, which preferably consists of screws passed through said plate from the convex side inwardly and the heads of which are countersunk in the convex side of said plate, while the lugs or projections e^5 on the outer side of said plate may be formed by passing screws through said plate or in any desired manner. The segmental grooves e^4 in the end members e^3 of the plate e^2 form an inner segmental flange e^7 and an outer segmental flange e^8, and in placing the separate parts of the hinge together the inner segmental flanges e^7 at the opposite end of the plates e enter the segmental grooves c^6 in the end members c^5 of the part c^3 of the plate c^2, and the outer flanges e^8 at the opposite ends of the plate e^2 enter the grooves d^6 at the opposite ends of the part d^4 of the plate d^2.

In placing the parts of this hinge together

the part e is slipped into the part c from the left side thereof and is moved around as far as it will go or until the lugs or projections e^5 strike the lugs or projections c^7. In this position of the parts e and c the left-hand edge of the part e is slightly to the right of the plate c^2. The part d is taken in the right hand and is passed down onto the part c, the plate d^2 entering the space between the plate c^2 and the part e. The part e may then be turned backwardly or to the left, and the flanges d^6 will enter the grooves e^4, or the part d may be turned to the right, when the same result will be obtained. The parts being thus connected may be swung back and forth in the manner of a hinge through a half-circle and cannot be disconnected, except by reversing the above-described operation, which consist in placing the plates d^2 and c^2 together and then moving the part e away from the plate d^2 until it is withdrawn from said plate, after which the part d may be detached.

It will be observed that the part e is the carrying part of a hinge and connects the other two parts, and the movements of said parts is limited in one direction by the lugs or projections e^6 operating in connection with the lugs or projections c^7 and in the other direction by the lugs or projections e^5 operating in connection with the lugs or projections d^7.

The reason for forming the lugs or projections e^6 of screws which are passed through the plate e inwardly or from the convex side thereof is to provide means whereby these lugs or projections may be removed in order to separate the parts of a hinge when in use, as without this a door could not be taken off of its hinges or be detached from the frame without taking off the hinge from the door.

It will be observed that the plates c^2 and d^2 are secured to the door-frame and door, respectively, in the usual manner, and the door-frame is provided with a recess f, in which one-half of the member c^3 of the part c of the hinge fits and around which is a segmental space f^2, adapted to receive the movable or central part e of the hinge when the door is closed and also the member d^4 of the part d of the hinge. The door b is also provided with a recess g, similar to the recess f, and this recess when the door is closed receives a part of the member c^3 of the part c of the hinge and also a part of the plate e^2.

In this improvement the member d^4 of the part d of the hinge is of the same length as the member c^3 of the part c, and the interlocking flanges of these parts at the ends thereof operate in grooves formed in the ends of the part e, and a much more substantial and compact hinge is formed than with the construction described and claimed in the patent referred to, and there is less open space at the top and bottom and at one side of this hinge when the door is open than is possible with the hinge described and claimed in said patent.

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

A hinge comprising three parts, one of which consists of a plate having a longitudinal opening in one edge thereof and an oblong member arranged transversely therein and connected at the ends thereof with said plate and convex in cross-section on one side and plane on the other, the convex side of said member being provided at the opposite ends thereof with segmental shoulders or projections having segmental grooves in the opposite faces thereof, and said member being also provided adjacent to one edge thereof and on the convex side thereof with lugs or projections; another part consisting of a plate provided with a longitudinal opening in one edge thereof and with an oblong member secured therein, and said member being segmental in cross-section and provided at its opposite ends and on its concave side with segmental shoulders or projections in the opposite faces of which are formed segmental grooves, said member being also provided on its concave side and near the edge thereof with lugs or projections; the other member consisting of an oblong plate segmental in cross-section and thickened at both ends and provided in each end with a segmental groove; said parts being connected and adapted to turn one upon the other, substantially as shown.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 11th day of May, 1903.

JOSEPH SOSS.

Witnesses:
F. A. STEWART,
C. E. MULREANY.