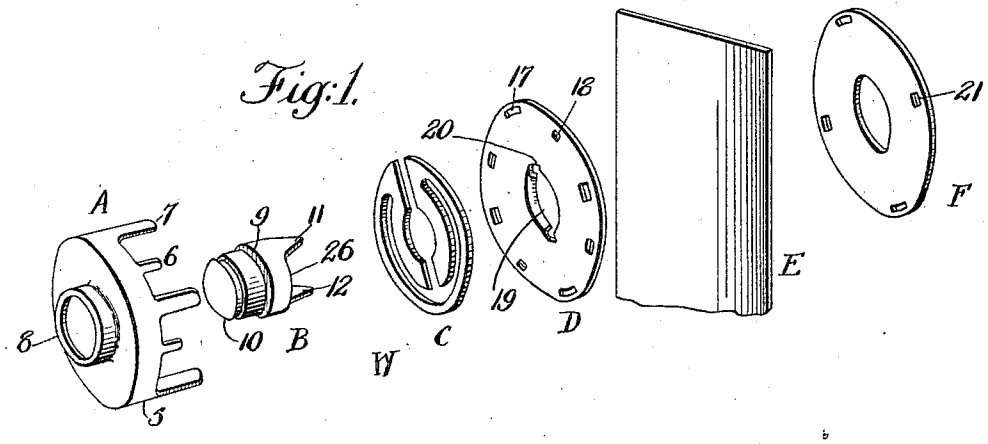
G. OLSON.

FASTENER FOR CURTAINS OR THE LIKE.

APPLICATION FILED MAY 14, 1920.

1,402,951. Patented Jan. 10, 1922.

Fig:1.



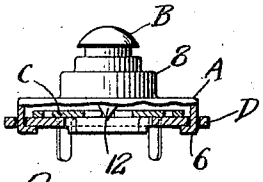
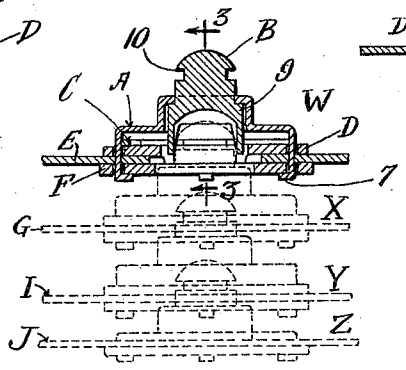


Fig:2.

Fig:4.



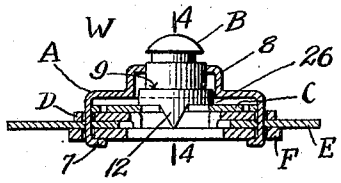


Fig:3.

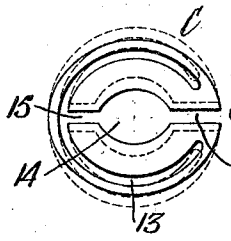


Fig:6.

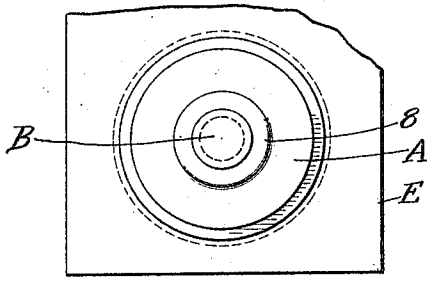
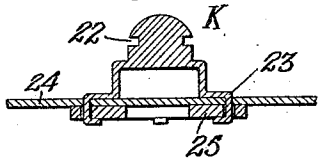


Fig:5.

Fig:7.



Inventor

Gustav Olson

By his Attorney.

Paul Bryan

UNITED STATES PATENT OFFICE.

GUSTAV OLSON, OF HASTINGS-ON-HUDSON, NEW YORK.

FASTENER FOR CURTAINS OR THE LIKE.

1,402,951. Specification of Letters Patent. Patented Jan. 10, 1922.

Application filed May 14, 1920. Serial No. 381,232.

To all whom it may concern:

Be it known that I, GUSTAV OLSON, a subject of the King of Sweden, residing at Hastings-on-Hudson, in the county of Westchester and State of New York, have invented a certain new and useful Improvement in Fasteners for Curtains or the like, of which the following is a specification.

The invention is a fastener for uniting together carriage or automobile curtains, straps, belts, articles of apparel, or any other thin flexible objects for which a detachable connection is desired.

The problems here solved are many. One was to construct fasteners which can be produced cheaply in large numbers, and so made that each fastener while wholly independent in itself can nevertheless be connected to every other similar fastener. In other words, considering two interchangeable fasteners united to two separate curtains, for example, so that either may be used as the holder for the other fastener.

Another problem was to organize said fasteners so that when connected to practically any number of curtains, for example, all of these curtains may be united one to the other in series; that is, curtain No. 2 united to curtain No. 1, curtain No. 3 to curtain No. 2, curtain No. 4 to curtain No. 3, and so on indefinitely. Another problem was to construct each fastener so that by the pressure of a button it would be made ready to engage its associated fastener, and upon the release of said pressure caused to engage it.

Another problem was to construct each fastener so that when two were to be released, the pressure on the above-mentioned button would cause them to fall apart without necessarily any other manual manipulation.

Another problem was to make these fasteners not merely independent of one another as structures, but so as not to require any third device to join them together when a number of them are connected in series. That is to say, to make each fastener so that it unites only with the next adjacent fastener, and not with some bond of union common to all. All of these problems are solved in my present device. A user may buy a thousand or more of these fasteners and know that every one is connectible to every other one; that he can join by means of them many separate curtains; that there is no danger of tearing curtains in trying to pull the fasteners apart; that it is not necessary to buy separate buttons and separate holders, because the present device serves both functions, as described.

In the accompanying drawing—

Fig. 1 shows the parts of my fastener in perspective and separately. Fig. 2 shows partly in elevation and partly in transverse section, the parts A, B, C, D of Fig. 1 assembled and ready for attachment to the curtain, and rear washer. In this figure the button B is in normal position as pushed out by its spring. Fig. 3 is a section on the line 3, 3 of Fig. 4, the button B being here in depressed position. Fig. 4 is a section on the line 4, 4 of Fig. 3, with the button B here in the same position as in Fig. 2. Said figure also shows in dotted lines a number of my fasteners engaging serially with one another. Fig. 5 is a top view of my fastener. Fig. 6 shows separately the spring C, and illustrates by dotted lines the position assumed thereby under expansion by button B. Fig. 7 shows in section a form of fixed button, with which my fastener may be caused to engage.

Similar letters and numbers of reference indicate like parts.

My fastener, here generally designated by the letter W, comprises the parts A, B, C, D and F, as shown in Fig. 1. The curtain, to which the device is attached, is shown at E. A is a circular metal casing, on the flange 5 of which are integrally formed tongues 6, 7, the tongues 7 being longer than and alternating with the tongues 6. In said casing is a central opening having a flange 8. B is a button slidably fitting in said central opening and having a shoulder 9 bearing against said casing. In the portion of said button protruding beyond flange 8 is a groove 10. The inner end of the button is recessed and provided on its circumferential edge with two downwardly extending tongues 11, 12. C is a leaf spring having a curved U-shaped slot 13, a central elliptical opening 14 between the arms of said U-shaped slot, and two slots, one of which, 15, communicates with the middle portion of said U-shaped slot, and the other, 16, extends between the arms of said U-shaped slot through the edge of the plate. D is a back plate, circular in form. Near the edge thereof are slots 17 to receive the tongues 7, and smaller alternating slots 18 to receive the tongues 6. There is a central

opening 19 in said plate having on opposite sides recesses 20 to receive the tongues 11, 12. This plate when in place bears against the curtain E. On the opposite side of said curtain is applied a washer F having a central opening, and slots 21 near the edge to receive the tongues 7.

The device is assembled as follows:

Upon the curtain K is placed, first, the back plate D, and then the spring plate C. The button B is applied to the spring plate C, with its tongues 11, 12 passing through the central opening 14 therein, and also entering the recesses 20 in plate D. The edge 26 of the button on each side and between the tongues 11, 12 bears on the part of the spring plate adjacent to the opening 14. The tongues 11, 12 serve both as guides for the button and to prevent lateral displacement of the spring C. The casing A is placed upon the button B, and the short tongues 6 thereon are passed through the slots 18 in plate D and bent over, as shown in Fig. 2. The parts A, B, C, D are now secured together and ready for application to the curtain E. This is done by passing the tongues 7 through the slots 17 in plate D, through the material of the curtain, and through the slots 21 in washer F, on the rear side of which they are bent over, as shown in Fig. 3.

My fastener is used to connect the curtain, to which it is attached as described, to a second curtain in the following way: To said second curtain G, Fig. 4, I may apply another of my fasteners, generally indicated by the dotted lines at X in Fig. 4. To apply fastener W to fastener X, the button B of fastener W is first pushed inwardly from the position shown in Fig. 2 to that shown in Fig. 3. The edge 26 of the button, because it bears on the portion of the spring plate C immediately around the middle opening 14 therein, inwardly bends said spring and causes said opening to expand, as indicated by the dotted lines in Fig. 6, the slots in said spring permitting of this expansion. This allows the button of fastener X to pass through said opening 14 and enter the space between the tongues 11, 12, until its groove 10 registers with the edges of said opening. The button B of fastener W then being released by the operator, is moved back to normal position by the resiliency of the spring C, and at the same time, the said edges of the spring opening 14 engage in said groove 10, and so lock the two fasteners together. To release fastener W from fastener X, it is merely necessary to push in again the button B of fastener W, which once more expands the opening 14 in spring C and allows the button of fastener X to drop out. It is to be particularly noted here that the simple pressure of the button fastener W allows of the insertion of the button of fastener X, and its release accomplishes the locking of fasteners W and X together. And that the simple pressure of the same button is all that is necessary to cause the fasteners W and X to come apart. No manual pulling apart need take place. Even if the fasteners be applied to curtains so arranged that gravity after the pressure on the button does not tend to separate them, a slight pull on the curtain from one side of the united devices will effect their separation.

In the same way that fastener W is applied to fastener X on a separate curtain G, so may fastener X be applied to another and similar fastener Y (dotted lines Fig. 4) on another curtain I, and in turn the fastener Y may be connected likewise to another fastener Z on a separate curtain J, and in brief practically any number of curtains or other objects, to each of which my fastener is applied, may be united one upon or to the other in series. Each fastener is exactly like every other fastener. Each is applied to its own curtain separately, and wherever desired to register with the one with which it is to connect. There is no connection whatever between the several fasteners other than the button of one releasably entering the other. They have no common support extending between or uniting them, such as a pin, for example, extending through all and to which each is connected. The same pressure upon the button of the fastener W which opens the spring to release the button of the fastener X also pushes the first fastener away from the second, thus facilitating the release.

Instead of using one of my fasteners as the holding device to which the connected fastener is, or a series of fasteners are, attached, I may use a simple fixed button such as shown in Fig. 7. The button proper K is here made of dimensions to enter and become engaged in one of my fasteners, and provided with a groove 22, similar to groove 10, a shoulder to bear upon the curtain 24, and tongues 23 passing through the curtain and bent over after passing through slots in a rear washer 25.

I claim:

1. Fastening means for a plurality of curtains or the like, comprising a plurality of fasteners, each comprising a casing, a lock therein, and external means for operating said lock disposed on one side of said casing; the said lock operating means of each casing entering the next adjacent casing at the side opposite the lock operating means thereof and being engaged by said lock therein.

2. Fastening means for a plurality of curtains or the like, comprising a series of fasteners, each comprising a casing, a lock therein, and means for operating said lock; the operating means of each fastener of the

series engaging with the lock of the next adjacent fastener.

3. Fastening means for a plurality of curtains or the like, comprising a plurality of fasteners respectively attached to said curtains, each fastener comprising a casing, a lock within said casing, and a slidable press button entering said casing and controlling said lock; the press button of each fastener being constructed to enter the casing of any other of said fasteners and to be engaged by the lock therein.

4. Fastening means for a plurality of curtains or the like, comprising a plurality of fasteners, each comprising a casing, a lock therein, and external means for operating said lock; the said lock operating means of each fastener being constructed to enter the casing of any other of said fasteners and to be engaged by the lock therein.

5. A fastener for curtains or the like, comprising a casing, an annular back plate, a slotted leaf spring within said casing and having a central opening, a button slidable in said casing and bearing on the surface of said spring adjacent to said opening, guide tongues on said button entering said spring opening and said annular back plate, and means for uniting said casing and said back plate.

6. A fastener for curtains or the like, comprising a casing, an annular back plate having recesses in its inner edge, a slotted leaf spring within said casing and having a central opening, a button slidable in said casing having a cup-shaped recess in its inner end, and guide tongues on the circumferential edge of said recess extending through the central opening in said spring and the recesses in said back plate opening, and means for uniting said casing and said back plate.

7. A fastener for curtains or the like, comprising a casing, an annular back plate, a leaf spring within said casing having a U-shaped slot, a central opening between the arms of said U-shaped slot, and two slots, one of which connects said opening with the middle portion of said U slot and the other extends between the arms of said U slot through the edge of the spring, a button slidable in said casing and bearing at its inner end upon the surface of said spring adjacent to said middle slot, and means for uniting said casing and said back plate.

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

GUSTAV OLSON.

Witnesses:
GERTRUDE T. PORTER,
MAY T. MCGARRY.