C. F. BLACK.

ADJUSTABLE SAFETY HANDLE.

APPLICATION FILED MAY 16, 1913.

1,087,103. Patented Feb. 17, 1914.

Fig. 1.

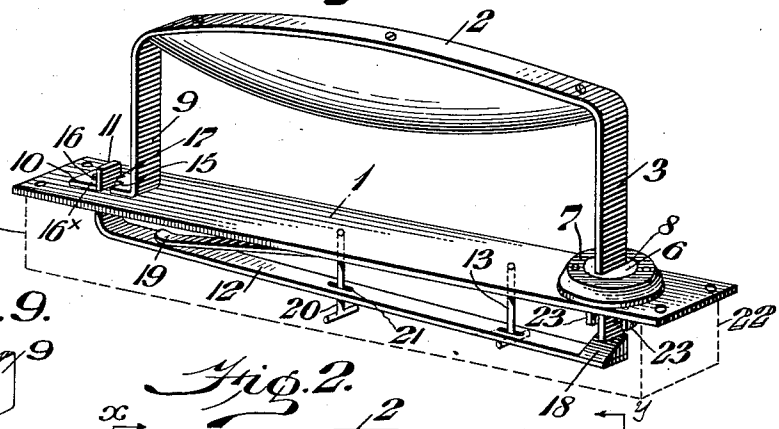


Fig. 9.

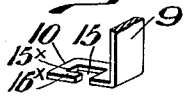


Fig. 2.

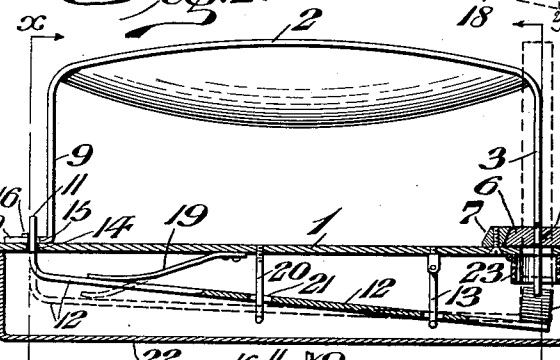


Fig. 10.

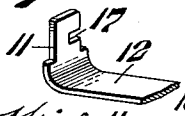


Fig. 7.



Fig. 11.



Fig. 4.

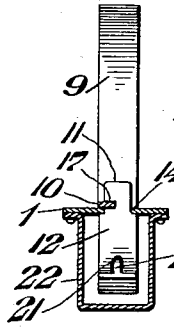


Fig. 12.

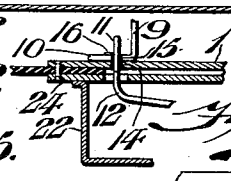


Fig. 8.

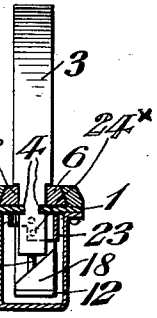


Fig. 5.

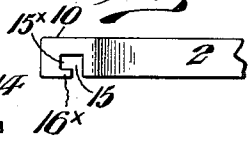


Fig. 6.

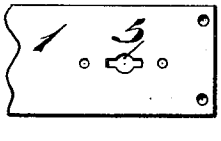
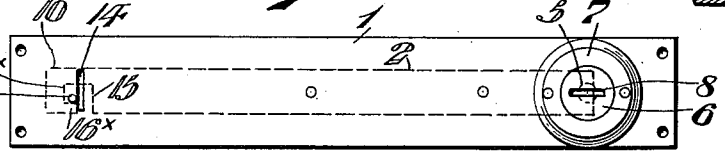


Fig. 3.



WITNESSES

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ADJUSTABLE SAFETY-HANDLE.

1,087,103. Specification of Letters Patent. Patented Feb. 17, 1914.

Application filed May 16, 1913. Serial No. 767,973.

To all whom it may concern:

Be it known that I, CHARLES F. BLACK, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Adjustable Safety-Handle, of which the following is a specification.

My invention consists of an adjustable safety handle for carrying a suit case, satchel, or other object, in which provision is made for readily applying the handle proper in position, and firmly retaining it therein, and adapting the same to be removed from said object so that the carrying of the latter by an unauthorized person is rendered inconvenient, other details being presented as will be hereinafter described and claimed.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a perspective view of a handle embodying my invention. Fig. 2 represents a longitudinal vertical section thereof. Fig. 3 represents a top or plan view of a portion thereof. Fig. 4 represents a vertical section on line *x*—*x* Fig. 2. Fig. 5 represents a top or plan view of a portion of the handle proper of the device. Fig. 6 represents a top or plan view of a portion of the top plate of the device. Fig. 7 represents a perspective view of one of the end arms of the handle proper. Fig. 8 represents a vertical section of a portion on line *y*—*y* Fig. 2. Fig. 9 represents a perspective view of a portion of the handle proper opposite to Fig. 7. Fig. 10 represents a perspective view of a portion of a lever employed in the device. Fig. 11 represents a vertical section of a portion of the handle proper, the top plate, said lever and a stud employed. Fig. 12 represents a section of a portion showing a reinforce or stiffener for the top plate of the device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the top plate of the device, the same being attachable to an article to be carried, for instance, a suit-case, satchel, etc. 2 designates a handle, which is adapted to be connected with said plate above the same by means as follows:—On the side of the depending arm 3 of the grip of the handle, said arm being flat in cross section, are the recesses 4, and in the plate 1 is an opening 5 which is narrower in one diameter than the other. On the plate above said opening is the rotating escutcheon or seat 6 which is retained within the collar 7, the latter being screwed or otherwise fastened to said plate, said seat having therein an elongated slot 8 which is adapted to register with the opening 5 in the plate 1, consequently when the lower end of the limb 3 is inserted in said slot 8, and the opening 5 in the long diameter of the latter, the handle is rotated a quarter-turn, whereby the walls of the recesses 4 occupy a position at a right angle to that they occupied when the limb 3 was first inserted in said opening 5, consequently said walls engage the side walls of the narrow diameter of said opening 5 on the underside of the plate 1, whereby said limb is interlocked with said plate from below. The other depending arm 9 of the grip of the handle has a laterally extending flange 10 which is adapted to rest on the plate 1 and engage with the upwardly extending limb 11 of the lever 12, which is mounted on and depends from the underside of the plate 1 by the pivot 13, it being noticed that said plate has an opening 14 therein for the protrusion of the limb 11 therethrough, it being noticed also that the flange 10 has in the slot 15 to receive the limb 11 of the lever 12, an offset $15^{\times}$ which is adapted to receive the stud 16 which is secured to the plate 1 and rises therefrom, said offset being closed on its outer side by the wall $16^{\times}$ which serves to prevent subsequent disengagement of the handle from said stud.

In the side of the limb 11 of the lever 12 is the slot 17 whose wall is adapted to receive the portion of the flange 10 back of the slot 15 whereby said flange may interlock with said limb to prevent the handle from upward disconnection from the limb 11, it being seen also in Figs. 3, 2, and 11, that the stud 16 enters the offset of the slot 14 and so controls the flange 10 that the latter is prevented from lateral disconnection from the limb 11 whereby the handle remains interlocked with the lever 12 and consequently with the plate 1. In order to operate said lever whereby its limb 11 occupies its elevated position in the opening 14 the upper side of its heel end has thereon an inclined

plane or cam 18 which is adapted to be engaged by the lower end of the arm 3 of the handle and thus depress said end as will be hereinafter more fully explained while the lever may be operated to lower said limb 11 by the action of the spring 19 which is secured to the underside of the plate 1 and bears downwardly against said lever, as most plainly shown in Fig. 2, it being noticed that said inclined plane serves to press the walls of the recesses 4 in the arm 3 tightly against the underside of the plate 1, while the relative portion of said arm occupies the opening 5. It will be seen that when the arm 3 is inserted in the seat or escutcheon 6 to full extent and then rotated, a quarter turn, its lower end rides on the inclined plane 18 and depresses the latter and with it the heel end of the lever 12. This raises the opposite end of the lever and with it the limb 11, the latter then rising through the slot 14 so as to be in the path of the flange 10 of the arm 9 when the handle has about completed its turn, and it is pushed forward sufficiently to cause the stud 16 to enter the offset 15^x while the flange 10 enters the slot 17 of the limb 11, whereby when said limb has risen to full extent with the lever said flange and limb are interlocked and the handle is connected with the plate 1 and prevented from rising and lateral motions or disconnection.

It is evident that the handle may be removed by forcibly pushing it rearwardly and turning it in reversed direction to the first named, when the flange clears the stud 16^x and the wall of the slot 15 withdraws from the slot 17 of the limb 11. Then the inclined plane 18 moves from the lower end of the arm 3 thus relieving said end of the upper pressure of said plane, when as said arm completes its turn it may be drawn through the long diameter of the opening 5 and the slot in the escutcheon and so entirely removed from the plate 1, leaving the object to be carried without the handle proper for a purpose hereinbefore stated. As the lower end of the arm 3 rides on the inclined plane, the latter rises with the end of the lever due to the action of the spring 19 when the limb 11 of said lever is lowered and so occupies a position below the top of the plate 1 whereby it is comparatively inaccessible.

The lever 12 may be guided in its motions by means of the inverted T piece 20 whose shank depends from the underside of the plate 1 and freely enters an opening 21 in said lever, the head of said piece being on the underside of the lever, so as to act as a stop limiting the descent of the same.

The mechanism of the device below the plate 1 is inclosed in the casing 22 for protection thereof against tampering and contact of the fingers therewith.

To the top plate 1 on the underside thereof, I secure the reinforcing member 24, see Fig. 12, which consisting of a strip of metal or other suitable material may be extended the entire or partial length of said plate, so as to strengthen the same, it being seen that said member has an opening for the passage of the limb 11 of the lever 12 therethrough, and that the casing 22 is connected with said member and the material of the object to which the handle is applied, is interposed between said member and plate and clamped thereby.

The recesses 4 in the arm 3 of the handle may be varied to change the combination employed for locking said arm with the plate 1 on the underside of the opening 5 therein. To accomplish this result, I employ the collar 23 which depends from the plate 1 about said opening 5. In this case, should the handle be lost or stolen, said collar is provided with a plurality of openings 24^x, one below the other in the side thereof, so that any kind of a pin may be passed therethrough, as shown dotted in Fig. 7. Then, a recess such as 4 will be filed or cut out in the side of the arm 3, of a new handle to be employed, below what is shown in said Fig. 7, so that said pin may be passed therethrough, this providing as it were, a locking "combination" for said new arm independent of the plate 1.

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

1. A handle, a support, means on said support and handle whereby said handle is removably attachable to said support, said handle having a member mounted for partial rotation, and depressible means actuated by such rotation to lock the handle to the support.

2. A handle, a support, means whereby said handle is turnable laterally on said support, and means on said support and handle embodying a movably mounted lever, whereby said handle is removably interlockable with said support.

3. A support, a detachable handle thereon, means permitting said handle to turn laterally on said support, means on said support for locking one end of said handle therewith, a lever mounted on said support, means on one end of said lever with which one of the side members of the handle may engage to operate said lever, and means on the other end of the said lever and the adjacent side member of the handle whereby the latter named member and latter named end of said lever are interlocked and made detachable.

4. A support and a handle removably attachable thereto, said handle having one of its side members adapted to pass through said support, and the other side member

adapted to rest on said support, a lever mounted on said support, one of said members being adapted to engage with one limb of said lever, and the other member being adapted to be interlocked with the opposite limb of said lever.

5. A support, and a handle removably attachable thereto, a rotating escutcheon on said support, said support and escutcheon having openings being adapted to register, the opening of said support being of length greater than width, a side member of said handle having a recess, the wall of which may engage with the underside of the wall of the opening in said support thus interlocking said side member of the handle with said support.

6. A support and a handle removably attachable thereto, said support having openings therein, a lever mounted on the underside of said support, one end of said lever having thereon a cam which is adapted to be engaged by a side member of said handle to depress the same, said side member being adapted to be passed downwardly through one of said openings in said support, a flange on the other member of said handle, which is adapted to rest on said support, said lever having on the end opposite to said cam a limb which is adapted to be passed upwardly in the other opening of said support, and means on said limb and flange for removably interlocking the same.

7. A support and a handle removably attachable thereto, and a vertically-extending stud on said support, said handle having a side member provided with a flange having therein a slot which is adapted to receive said stud preventing lateral motion of said member on said support.

8. A support and a handle removably attachable thereto, said handle having a slotted flange, a lever mounted on said support on the underside thereof having a limb which is adapted to protrude upwardly through an opening in said support and interlock with said flange, limiting rising motion of said member from said support.

9. A support and a handle removably attachable thereto, a vertically extending stud on said support, said handle having a side member provided with a flange having therein a slot which is adapted to receive said stud, a lever mounted on said support on the underside thereof having a limb which is adapted to protrude upwardly through an opening in said support and interlock with said flange whereby said side member of the handle is prevented from vertical and lateral disconnections from said support.

10. A support and a handle removably attachable thereto, a side member of said handle having a recess, said support having an opening through which said member is movable, said recess being adapted when said handle is turned to interlock with the underside of the wall of said opening and means coöperating with the handle to prevent disengagement thereof.

11. A support and a handle removably attachable thereto, said support having an opening therein, a lever mounted on the underside of said support having an upwardly extending limb adapted to pass through said opening, a side member of said handle being adapted to engage said limb preventing rising and lateral motions of the member.

12. A support and a handle removably attachable thereto, a side member of said handle being adapted to pass through an opening in one end of said support and interlock with the wall of said opening on the underside thereof, a lever mounted in the underside of said support having an upwardly extending limb which is adapted to pass upwardly through an opening in the other end of said support, the other side member of said handle being adapted to engage said limb and removably interlock said handle with said support.

13. A handle, a support therefor, and a collar pendant from said support, a terminal of said handle being adapted to pass through said collar and support, said terminal having a recess in its side, and said collar having an opening therethrough to receive a pin-member which may also be passed through said terminal.

CHARLES F. BLACK.

Witnesses:
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N. BUSSINGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."