

(No Model.)

J. HOFFMAN.

AUTOMATIC HOLDER FOR KNIVES AND PENCILS.

No. 290,683.

Patented Dec. 25, 1883.

Fig. 1.

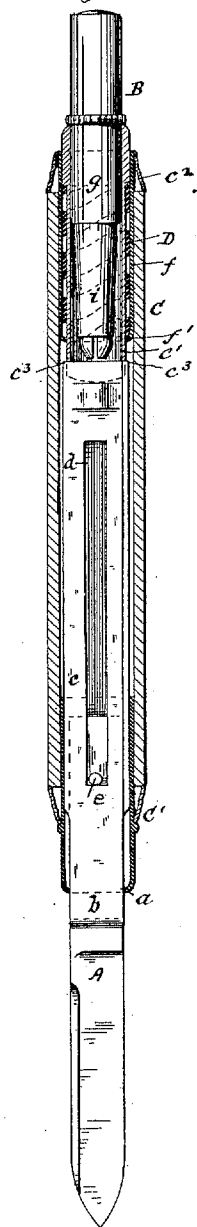


Fig. 3.

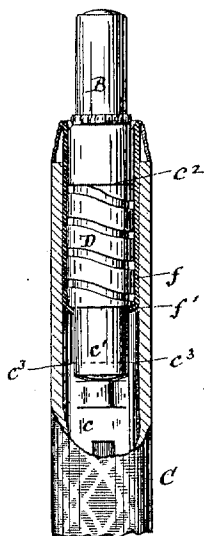


Fig. 2.

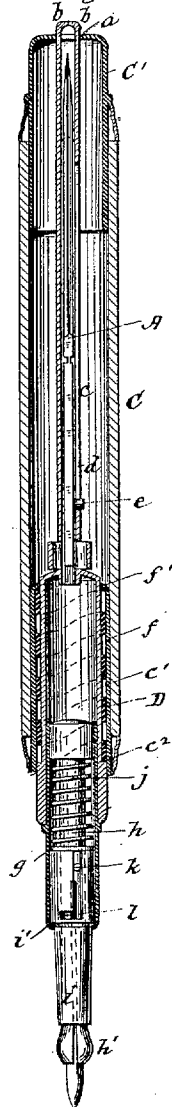
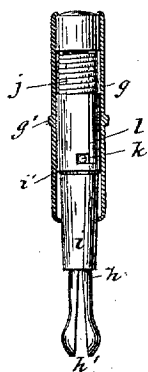


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH HOFFMAN, OF NEW YORK, N. Y., ASSIGNOR TO HENRY
BEROLZHEIMER, OF SAME PLACE.

AUTOMATIC HOLDER FOR KNIVES AND PENCILS.

SPECIFICATION forming part of Letters Patent No. 290,683, dated December 25, 1883.

Application filed October 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HOFFMAN, of the city, county, and State of New York, have invented certain new and useful Improvements in Automatic Holders for Knives, Pens, Pencils, and other Articles, of which the following is a specification.

My invention has relation to a holder of the "automatic" type—that is to say, a holder in which the case or handle and mechanism for clamping or holding the article contained in said handle are combined with a retracting-spring which maintains said mechanism normally in a position in which it grasps the article, and a pressure-cap by which said mechanism, for the purpose of releasing the article, can be moved against the stress of the retracting-spring.

My improvement is mainly characterized by the employment, as one of the members of the combination just recited, of a pressure-cap which is separable and removable from the holder. A pressure-cap having this characteristic can be availed of for a variety of uses. It may be a cover or stopper for a chamber or receptacle in the rear end of the holder, in which can be contained any desired article. It can also be made to constitute in itself a distinct instrument—such, for instance, as a lead-holder, an eraser, or the like—in which event the holder or eraser would be at one of its ends, and the removable cap as a whole would be reversible, so that either one of its ends, as desired, might be exposed. It is the construction last mentioned which is illustrated in the accompanying drawings, to which I shall now refer in order to explain more in detail the nature of my improvement and the manner in which the same is or may be carried into effect.

Figure 1 is a longitudinal central section of the instrument, partly in elevation. Fig. 2 is a like section in a plane at right angles with the plane of section in Fig. 1. Fig. 3 is a sectional elevation of the rear portion of the instrument. Fig. 4 is a sectional elevation of the removable and reversible pressure-cap.

The instrument represented in the drawings in illustration of my invention is an automatic holder of the "gravity" type, having the general characteristics of the "gravity-holder"

set forth in Reissued Letters Patent No. 10,335, dated June 5, 1883. The article contained therein is a knife-blade, A, and the reversible pressure-cap B is a miniature automatic lead and crayon holder. In Fig. 1 the blade protrudes, and the pressure-cap is placed so that its lead-holding end is concealed within the case or handle C of the instrument. In Fig. 2 the position of these parts is reversed. In Fig. 1 the parts are in normal position—that is to say, the position which they occupy when the grasping mechanism is closed upon the tang of the knife-blade. In Fig. 3 the pressure-cap is represented as advanced against the stress of the retracting-spring D, so as to move the grasping mechanism in a direction to release the blade.

C is the tubular case or handle, of any suitable configuration, material, and construction. At its front it terminates in a nozzle, C', through the contracted opening *a* in which pass the spring-jaws *b*, which normally expand, as in the ordinary automatic pencil. The jaws are formed on or carried by longitudinally-movable receiver *c*, in which is contained the knife-blade A and its tang, capable of freely sliding therein within limits determined by the length of slot *d*, (in the receiver *c*), into which projects a stud or projection, *e*, on the tang of the blade. The receiver *c* at its rear is connected to a tubular cylindrical extension, *c'*, which fits and is adapted to slide within a sleeve, *f*, inserted in the rear end of the case and fastened thereto. Between the tubular extension *c'* and the sleeve *f* is the spiral retracting-spring D, which bears at the front against a shoulder, *f'*, in sleeve *f*, and at the rear against a shoulder, *c''*, on the tubular extension *c'*. This retracting-spring moves the receiver in a direction to cause the jaws *b* to close, as in an ordinary automatic holder. The rearward movement of the receiver is limited by its shoulders *c''*, which will bring up against the front end of sleeve *f*.

Thus far the instrument is not materially different from the gravity-holder hereinbefore referred to, except as to the tubular extension *c'*, which is open at the rear and forms, in effect, a chamber or receptacle for containing any desired article. This chamber forms a socket for the pressure-cap B, which is inserted there-

in, and can be readily removed therefrom whenever desired. The pressure-cap in this instance constitutes a miniature automatic lead-holder, consisting of a shell or case, *g*, a lead-receiving tube, *h*, fastened to the closed rear end of the shell, and provided at its outer end with clamping-jaws *h'*, a contracted tip or nozzle, *i*, longitudinally movable with reference to the jaws, and a spiral spring, *j*, encircling the lead-tube and interposed between the closed end of the shell and the inner end of the tip or nozzle. The tip is prevented from being pushed out too far by the shoulder *i'* on it, which brings up against the contracted outer end of the shell or case.

A pin, *k*, on the lead-tube enters a bayonet-slot, *l*, in the tip, whereby when the tip is moved back by hand against the stress of the spring, for the purpose of permitting the jaws to open, it can be retained in that position by rotating it sufficiently to cause the pin to enter the cross-notch at the outer end of the slot, as indicated in Fig. 4. This feature I do not here claim, inasmuch as I have already made it the subject of a application for Letters Patent, Serial No. 108,194.

The shell *g* has upon its exterior an annular flange, *g'*, which limits the extent to which it can be inserted—either end foremost—into the receptacle *c'*. When inserted holder end foremost into the receptacle *c'*, its lead-holding portion is contained and concealed within said receptacle, and it presents externally the appearance of an ordinary pressure-cap, and can be used as such. When, on the other hand, it is put in in reversed position, as seen in Fig. 2, it constitutes a lead-holder, of which *C* is the handle.

It is not necessary that the lead-holding mechanism of the reversible pressure-cap should be automatic; and in lieu of carrying such a mechanism the pressure-cap may be provided at one end with any other suitable

or convenient instrumentality—as, for instance, an eraser or an eraser-blade, which latter would probably be preferred if the main portion of the instrument should have a sliding pencil or pen instead of a knife-blade.

What I claim herein as of my own invention is—

1. In an automatic holder, the combination of the case or handle, the grasping or clamping mechanism, the retracting-spring, and a reversible pressure-cap, substantially as and for the purposes hereinbefore set forth.

2. The combination of the case or handle, the receiver and grasping mechanism longitudinally movable therein, and a pressure-cap which engages and removes with said receiver, and is movable therefrom, substantially as hereinbefore set forth.

3. The case or handle, the holding mechanism, and the tubular extension connected therewith and adapted to slide in the case, in combination with the pressure-cap adapted to fit and close said extension, and removable therefrom, substantially as and for the purposes hereinbefore set forth.

4. The removable and reversible pressure-cap having at one of its ends a lead-holding device or other instrument, in combination with the case or handle, the grasping mechanism, and the retracting-spring, substantially as and for the purposes hereinbefore set forth.

5. The removable and reversible pressure-cap and automatic lead-holder combined, in combination with the handle, the grasping mechanism, and the retracting-spring, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 23d day of October, 1883.

JOSEPH HOFFMAN.

Witnesses:

C. BRAISTED,
JOE W. SWAINE.

It is hereby certified that in Letters Patent No. 290,683, granted December 25, 1883, upon the application of Joseph Hoffman, of New York, New York, for an improvement in "Automatic Holders for Knives and Pencils," errors appear requiring correction as follows: In line 59, page 2, of the printed specification, the word "removes" should read *moves*, and in line 60, same page, the word "movable" should read *removable*; and that the patent should be read with these corrections therein to make it conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 8th day of January, A. D. 1884.

[SEAL.]

M. L. JOSLYN,
Acting Secretary of the Interior.

Countersigned:

BENJ. BUTTERWORTH,
Commissioner of Patents.