

(No Model.)

A. WOLFF.
HYPODERMIC SYRINGE CASE.

No. 506,453.

Patented Oct. 10, 1893.

Fig. 1

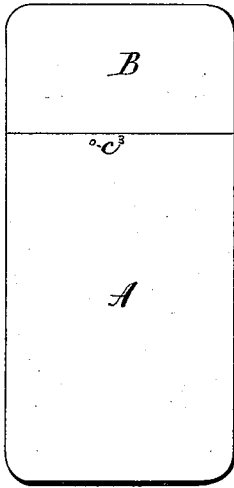


Fig. 2

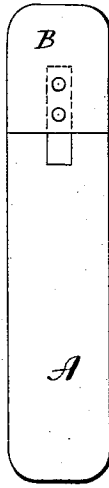


Fig. 3

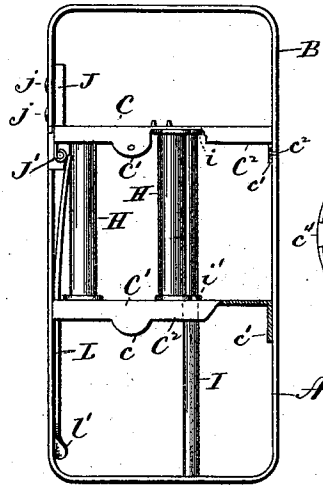


Fig. 5

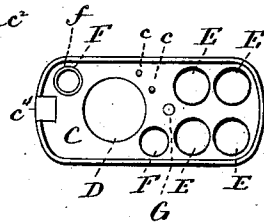


Fig. 4

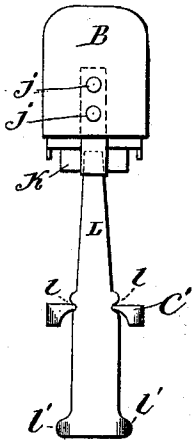


Fig. 7

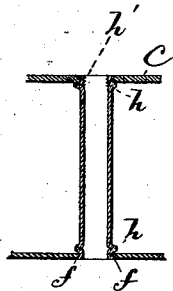


Fig. 6

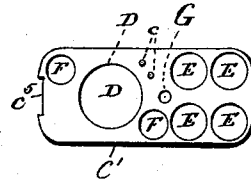
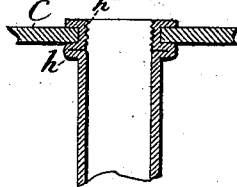


Fig. 8



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UNITED STATES PATENT OFFICE.

ADRIAN WOLFF, OF WATERBURY CONNECTICUT, ASSIGNOR TO THE
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HYPODERMIC-SYRINGE CASE.

SPECIFICATION forming part of Letters Patent No. 506,453, dated October 10, 1893.

Application filed June 17, 1893. Serial No. 477,953. (No model.)

To all whom it may concern:

Be it known that I, ADRIAN WOLFF, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Hypodermic-Syringe Cases; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a hypodermic-syringe case constructed in accordance with my invention; Fig. 2, a similar edge view thereof; Fig. 3, a view of the case partly in section and partly in side elevation; Fig. 4, a view showing the cover of the case, the upper and lower plates thereof, and the spring; Fig. 5, a detached plan view of the upper plate; Fig. 6, a similar view of the lower plate; Fig. 7, a detailed sectional view showing the manner of securing the two plates together by the needle-tubes; Fig. 8, an enlarged view showing the upper end of one of the needle-tubes and a portion of the upper plate.

My invention relates to an improved hypodermic-syringe case, the object being to produce at a comparatively low cost for manufacture, a simple, strong and convenient article in aluminum, without resorting to soldering the same.

With these ends in view, my invention consists in a hypodermic-syringe case, having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention, I construct the body A, and cover B, of the case of aluminum, preferably by drawing suitable sheet-metal blanks into the required form. The said body A, of the case contains a framework, adapted to receive the syringe, the tablet-vials, the needles, and the wires for cleaning the needles, none of the said instrumentalities, however, being shown herein. The said framework consists in part of a top-plate C, and a bottom-plate C', both of which are by preference struck out of sheet aluminum of suitable thickness. Each of the said plates is constructed with a large circular

perforation D, for the syringe, with four smaller circular perforations E, for the tablet-vials, with two still smaller circular perforations F, for the needle-tubes, and with one much smaller perforation G, for the extra wire tube. The upper plate is also provided upon its upper face with two small pin-like projections c c, which are designed to receive between them the handle of the syringe, and prevent the same from rotating when in the case. Each of the said plates is encircled by a depending flange C², which gives them a wide bearing against the walls of the body A, of the case. The said flanges are themselves provided with lugs c', which furnish means for the attachment of the framework to the said body. As herein shown, the lugs of the upper plate are perforated to receive small screws passed into them from the outer face of the body. One of these screws C² is shown in Fig. 3 of the drawings, while Fig. 1 of the drawings shows a perforation c² formed near the edge of the body to receive one of the screws. If desired, the lugs c' of the lower plate C', may also be perforated, but generally it will be found sufficient to attach the framework to the body A through the medium of the upper plate. The said plates are secured to each other by means of tubes H H, which receive the syringe-needles. These tubes are constructed very near their ends with beads h h, which are abutted against the inner faces of the respective plates, the extreme ends of the tubes being passed through the openings F F of the plates, and then swaged down to form retaining flanges f, as clearly shown in Fig. 8 of the drawings. The tubes H H therefore, have the two-fold function of binding the plates together, and of receiving the needles. To adapt them to the latter use, their upper ends are threaded, as at h', as seen in Figs. 7 and 8 of the drawings. The perforations G G formed in the plate, receive the extra wire tube I, which is provided near its upper end with an annular outwardly projecting bead i, and about midway of its length with a corresponding bead i', these two beads being arranged in their separation from each other to correspond to the distance between the plates C C', when the same are connected by the needle-tubes H H. The extreme upper

end of the tube I, extends into the perforation G, in the upper plate, while the lower end of the tube passes through the corresponding perforation G, in the lower plate, and thence
 5 downward into the body. The hinge connecting the cover with the body is attached without the use of solder, and consists of a post J, of aluminum or other material, which is secured by rivets *j j* to the said cover, the lower end
 10 of the post being furnished with a transverse pin J', which has bearing in a centrally bifurcated leaf K, which is formed by a folded extension made integral with the rear end of the top plate C, the said plate having a slot
 15 *c'* cut in its rear end to clear the said post. The steel spring L, which I employ to keep the cover closed, is connected with the frame-work without the use of solder, the rear or inner end of the bottom-plate C', being there-
 20 to constructed with a slot *c''*, which receives the spring, the edges of which are formed with notches *l l*, which the ends of the slot *c''* take into to prevent the spring from moving up and down or endwise, this being clearly
 25 shown in Fig. 4 of the drawings. The lower end of the spring has two inwardly bowed fingers *l' l'*, which conform to the curvature of the inner wall of the body, and prevent the spring from twisting.

30 It will be observed from the foregoing description that the several parts of my improved case are assembled without the use of solder, which is objectionable in the manufacture of articles of aluminum, because it
 35 discolors the same, and cannot be relied upon to hold fast.

I would have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at lib-
 40 erty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Let-
 45 ters Patent, is—

1. In a hypodermic-syringe case, the combination with the cover and body thereof, of a top and bottom plate located within the
 50 said body, perforated to receive the syringe, tablet-vials and needles, and tubes constructed near their ends with beads for the inner faces of the plates to rest against, and hav-
 55 ing their extreme ends swaged or flanged upon the outer faces of the plates, which are perforated to receive them, substantially as described.

2. In a hypodermic-syringe case, the combination with the body and cover thereof, of

a frame-work located within the body and comprising a top-plate having its inner end
 60 constructed to form one member of a hinge, the other member whereof is attached to the cover, substantially as described.

3. In a hypodermic-syringe case, the combination with the body and cover thereof, of
 65 a frame-work located within the body and comprising two plates perforated to receive the syringe, tablet-vials and needles, one of the said plates being provided with lugs for its attachment to the said body, and means
 70 for securing the two plates together, substantially as described.

4. In a hypodermic-syringe case, the combination with the body and cover thereof, of
 75 two sheet-metal plates perforated to receive the syringe, tablet-vials and needles, and encircled by depending flanges which bear against the walls of the body and means for securing the said plates together and to the
 80 said body, substantially as described.

5. In a hypodermic-syringe case, the combination with the body and cover thereof, of
 85 a frame-work located within the former, and adapted to receive a syringe, tablet-vials and needles, a spring having its edges notched to be engaged and held against longitudinal
 90 movement by the frame-work, and co-operating with the hinge uniting the body and cover, substantially as described.

6. In a hypodermic-syringe case, the combination with the body and cover thereof, of
 95 a frame-work located within the former to receive the syringe, tablet-vials and needles, of a spring co-operating with the hinge uniting the body and cover, and having its lower end
 100 bowed to engage with the bowed inner wall of the body, substantially as described.

7. In a hypodermic-syringe case, the combination with the body and cover thereof, of
 105 top and bottom plates struck up from sheet metal, attached to each other, secured within the said body, and adapted to receive the syringe, tablet-vials and needles, the rear plate having its inner end slotted, and a spring co-acting with the hinge uniting the cover
 110 and body, and constructed with notches which the end walls of the said slot take into to prevent it from endwise movement, substantially as described.

In testimony whereof I have signed this
 115 specification in the presence of two subscribing witnesses.

ADRIAN WOLFF.

Witnesses:

CHAS. FEHL,
 T. R. HYDE, Jr.