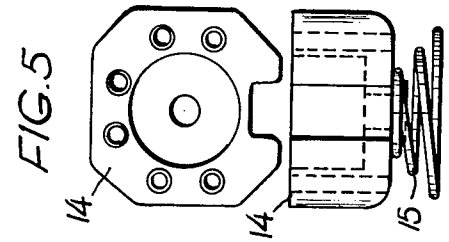
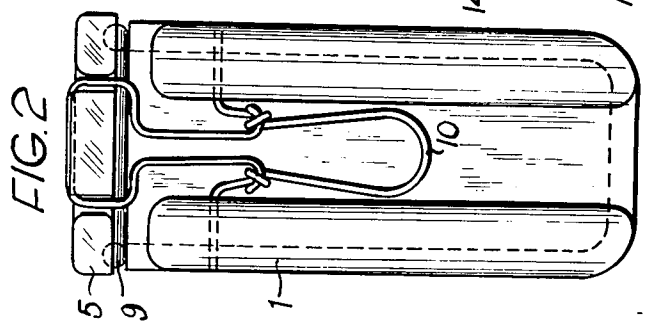
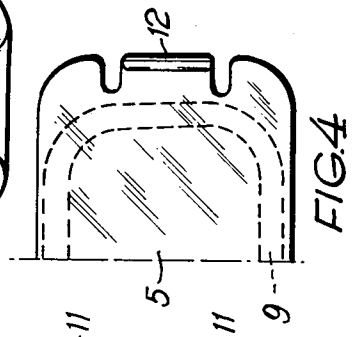
July 24, 1956 N. A. WECKMAN 2,755,920

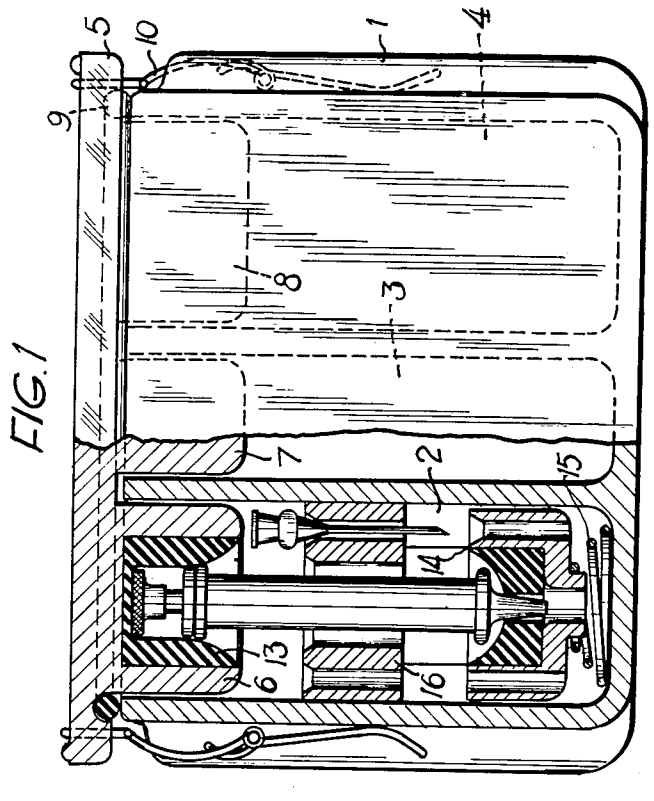
CASES FOR INJECTION-SYRINGES AND THE LIKE

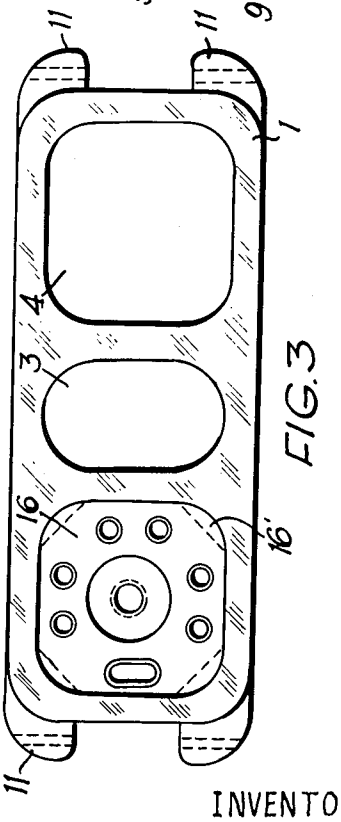
Filed March 2, 1953











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CASES FOR INJECTION-SYRINGES AND THE LIKE

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2 Claims. (Cl. 206—43)

The present invention refers to a case, which is primarily intended for injection syringes and other details required for injections, and the invention has for its object to protect these details in a manner to make them stand very powerful shocks in transport, for example.

The present invention refers specially to a case with a removable cover, the end portions of the syringe intended for the point of the same bearing against a supporting member which is displaceable within the case in the longitudinal direction of the syringe and is pressed against the latter by means of a spring and against two other supporting places for the syringe.

It is the purpose of the present invention to provide a case of the kind described above in which said supporting places are provided in the cover, one of them being adapted to support the end of the plunger handle and to prevent movements of the syringe, substantially in the longitudinal direction thereof, while the other supporting place in the cover is adapted to support the end of the syringe cylinder directed toward the plunger handle and to prevent movements of the syringe, substantially in the lateral direction thereof.

Another object of the invention is to provide a case in which the supporting places in the cover are arranged in a supporting member made in the form of a portion projecting from the cover and adapted to be guided by a corresponding space in the case.

Another object of the invention is to provide a case in which the surface portions of the supporting members bearing on the syringe are elastically resilient.

The invention will be described hereinbelow in connection with the annexed drawing, in which Fig. 1 shows a longitudinal section through the case with its lid placed thereon and with the injection syringe inserted into the same. Fig. 2 shows a vertical projection of the short side of the case with the lid placed on the same. Fig. 3 shows a horizontal projection of the case viewed from above without the lid. Fig. 4 shows one of the lateral portions of the lid viewed from above. Fig. 5 shows a horizontal projection of the bottom support, and Fig. 6 shows a vertical projection of the bottom support with a spring in it.

The case **1** is constituted by a box-shaped body constructed from metal, plastic, or some other material resistive to substances involved in the use of the case, such as alcohol, water, petrol, ether, as well as to heat. The case is preferably divided by means of partitions into three spaces, a space **2** for an injection syringe and injection needles and pincers, a space **3** for cotton wads, for example, and a space **4** for ampullas or other receptacles for the injection liquid. The case is provided with a cover **5** having projecting portions **6**, **7** and **8** fitting into and filling the upper portion of the respective spaces **2**, **3** and **4** of the case. When the cover is in its position of closure, said projecting members reinforce the walls of the case, so that the latter will stand powerful blows and shocks. Furthermore, the projecting portions serve as guiding means to bring down the cover, whereby the supporting

members may be made with a closer fit against the syringe. The cover is tightened against the case by means of an elastic packing **9** brought down into and secured in a channel within the cover. The cover is clasped against the case **1** by means of a quick-clasping device **10**, which is swingably secured in projecting ears **11** in the case and adapted to grip about a projection **12** in the cover. The ears **11** form longitudinally extending fillets, between which the clasping device **10** is protected against unintentional opening. The number of attachments depend on the size of the case, but in smaller cases it might be suitable to provide an attachment at each end of the case.

Provided in the projection **6** of the cover is a recess **13** adapted for the fastening of the upper part of the syringe. The plunger grip of the syringe will then bear on the bottom of the recess, while the upper bead of the cylinder bears against the lateral walls of the recess. The lower attachment **14** is made displaceable in the longitudinal direction in the space **2**, and is provided with recesses fitting the point of the syringe and the forward cylinder bead thereof. Arranged underneath the bottom attachment is a spiral spring **15** adapted to press the syringe upwardly against the cover. To provide for a particularly great safety against the smashing of the syringe to pieces, the attachments are preferably covered by some elastic material, such as rubber, plastic or the like, adapted to stand both heat, cold, alcohol, ether, water and other disinfectants. These elastic linings are marked in the drawing by crosswise hatching.

Furthermore, the space **2** has arranged therein a holder **16** for injection needles, which are thrust down into apertures, preferably marked in numerical order, and for tweezers, which are also put down into a recess in the holder **16**. Provided in the bottom attachment **14** are corresponding guiding means for needles and tweezers. The holder **16** preferably rests on projections **16'** (see Fig. 3) arranged along the corners in the space **2**, and is arranged at such a level that the injection needles reach up immediately underneath the cover so as to be retained in their places, even if the case is turned upside down.

The case described above and shown in the drawing is intended for an injection syringe of a capacity of 1 cubic centimeter, and is adapted for physicians, diabetics, veterinaries, medical attendants in the army, and so forth. Space is provided for six injection needles, which number may be varied for every special purpose, and for a pair of tweezers within the space **2**, for cotton wads in the space **3**, which are kept sterile with spirits or ether, and for ampullas, insulin or some other injection liquid in the space **4**. Non-elastic material is preferably laid on the bottom of the space **4** for the ampullas, said material preventing movement of the ampullas in the longitudinal direction while also protecting them against shocks. If a plurality of ampullas are placed within the same space, they must be separated by spacers to protect them against shocks.

The case described and shown in the drawing only represents an example of embodiment according to the invention and may be varied with respect to construction and details, without the inventive idea being departed from. Thus the space may comprise spaces only for an injection syringe, tweezers, and injection needles, which is particularly suitable for larger units. The syringe alone may also be housed within one space, while injection needles and/or tweezers may be kept in other spaces within the case. The resilient attachment of the syringe may also be provided for by means of a resilient supporting member in the cover. Two resilient supporting members, one at each end of the syringe, may also be conceived.

What I claim is:

1. A case for injection syringes comprising a box-shaped

body, a normally vertically disposed compartment of non-circular cross-section in said body having normally substantially vertical sidewalls and a bottom wall and adapted to contain a syringe, a first non-circular supporting member slidably mounted in said compartment, said first supporting member having a recess adapted to receive and engage the discharge nozzle of said syringe, a spring positioned between the bottom wall of said compartment and said first supporting member and adapted to push said first supporting member upwardly, a cover adapted to close the upper end of said compartment, a second supporting member secured to said cover, said second supporting member extending downwardly from said cover and slidably extending into the upper end of said compartment, said second supporting member having a socket the end wall of which is adapted to engage the plunger grip of said syringe and the side walls of which are adapted to engage the end of the syringe cylinder, quick clamping means swingably secured to said body and adapted to engage said cover, said box-shaped body being provided with longitudinally extending, spaced fillets to which said quick clamping means is secured, said fillets projecting at least as much as the clamping means from the surface of the body, so that the clamping means can rest in closed position between said fillets.

2. A case as defined in claim 1 comprising a needle

holder positioned in said compartment between said first and second supporting members, said holder being non-circular and having a central opening for the syringe and a plurality of openings for needles, said holder resting on projections formed on the walls in the compartment and arranged at such a level that the inserted needles reach up immediately under the second supporting member, said first supporting member having corresponding aligned guiding means for the needles inserted in the holder, said holder and first supporting member having substantially the same non-circular cross section as the compartment.

References Cited in the file of this patent

UNITED STATES PATENTS

1,350,713	Ferdon	Aug. 24, 1920
1,506,429	Kahn	Aug. 26, 1924
1,614,807	Stewart	Jan. 18, 1927
1,634,028	Ireland	June 28, 1927
1,838,825	Goldstein	Dec. 29, 1931
1,995,470	Chaney	Mar. 26, 1935
2,346,725	Butzke	Apr. 18, 1944
2,400,722	Swan	May 21, 1946
2,413,858	Boreat	Jan. 7, 1947
2,486,711	Harris	Nov. 1, 1949
2,558,742	Ericsson et al.	July 3, 1951
2,644,578	Bramming	July 7, 1953