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DEVICE FOR USE IN COLLECTION OF BLOOD FOR BLOOD TESTS

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Fig. 1.

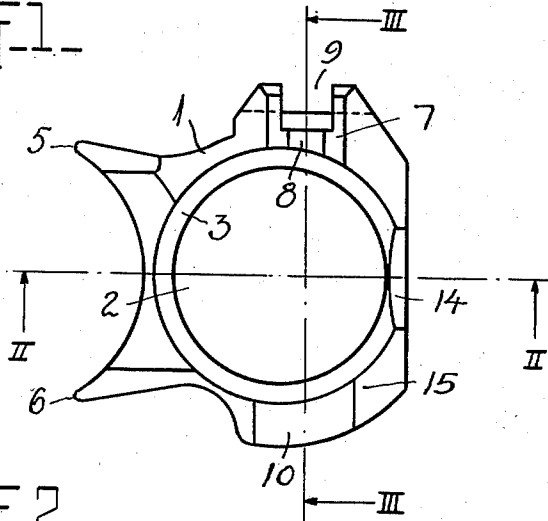


Fig. 2.

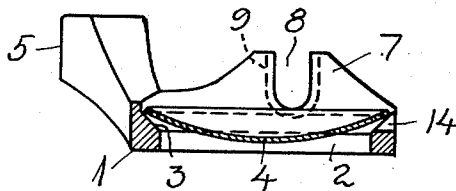
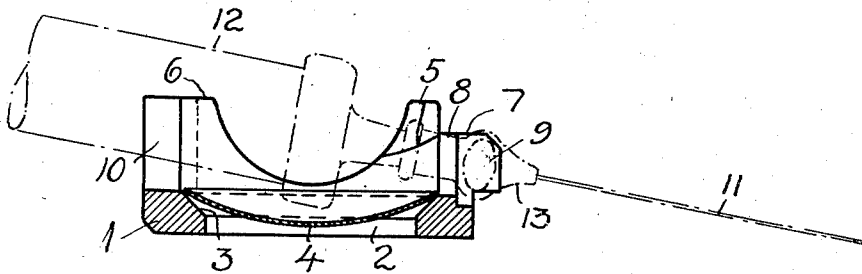


Fig-3.



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DEVICE FOR USE IN COLLECTION OF BLOOD
FOR BLOOD TESTS

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7 Claims. (Cl. 128—275)

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The present invention relates to a device for use in collection of blood for blood-tests.

Collection of blood for the determination of hemoglobin, counting of blood corpuscles etc. is usually effected by making a cut in the ear or some similar part which causes the patient considerable discomfort.

In connection with hypostasis reactions, blood is taken out by puncture of a vein by means of a syringe cannula and the object of the present invention is to provide a device by means of which it is possible to obtain, in an easy and simple manner, a desired separate quantity of blood for determination of hemoglobin, counting of blood corpuscles, or similar tests, at the same time as making a vein puncture for a hypostasis reaction. Thus a special cutting operation for obtaining blood for the hemoglobin and other tests is avoided.

Accordingly the invention consists of a device wherein a supporting member for a collecting cup is provided with a handle and with an upwardly open guide in which the head portion of a syringe cannula may be inserted and maintained against rotation and longitudinal displacement in such position that its free end extends to within the circumference of the collecting cup.

A preferred embodiment of the invention is illustrated by way of example, in somewhat enlarged scale, in the accompanying drawing, in which

Figure 1 shows a plan view of the device,
Figure 2 shows a section of the line II—II of Figure 1, and

Figure 3 shows a section along the line III—III of Figure 1.

In the figures, 1 denotes an approximately ring-shaped member having a bore 2 which, at the upper portion thereof, has a conical enlargement 3 serving as a seat for a collecting cup 4 of glass or the like. At one side the member 1 is provided with projections 5, 6 which serve as a handle when gripped between the forefinger and thumb. It will be understood of course that the handle may also comprise a single projecting portion. Preferably at right angles to the diametrical axis of the handle the member 1 is provided at one side with a raised portion 7 having an upwardly open slit 8 the outer portion 9 of which is somewhat enlarged as shown. Axially with the slit 8 and at the opposite side of the member 1 an approximately semi-cylindrical guiding surface 10 is arranged.

The device is used in the following manner:

When a vein puncture is made in connection

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with a hypostasis reaction by the insertion of common syringe cannula 11 and the syringe 12 is filled to the desired degree, the member 1 is placed underneath the syringe in such a position that the head portion 13 of the cannula 11 is inserted in the slit 8, 9 the narrow portion 8 of the slit encompassing the neck portion of the head 13 so that the said head cannot be moved in its longitudinal direction in relation to the member 1, or, at all events only to a minor degree. Further, the slit 9 is of such a width that the head portion 13, which normally is flattened, cannot be turned therein.

When the syringe 12 is turned backwards and forwards while resting on the guiding surface 10, the syringe is released from the head portion 13 and may be removed. When the syringe is removed, drops of blood escape from the head portion 13 and are collected in the glass-cup 4, since the slit 8, 9 is so arranged that the free end of the head portion 13 extends to within the circumference of the cup 4 as shown.

When the desired number of blood drops are collected in the cup 4, the member 1 is withdrawn whereby at the same time the cannula is drawn out of the vein.

The blood collected in the cup 4 may be used for the determination of hemoglobin, for counting of blood corpuscles etc. The blood in the cup 4 may be poured into a pipette or the like and for that reason a cut-away portion or cavity 14 is arranged in the seat 3 so that at this point the circumferential edge of the cup 4 is left exposed.

In order to hold the cup 4 in place when pouring out the blood contained therein, the cup rests against the raised portion 7 on one side of the cavity 14 and on the other side against a projection 15.

When finished with, the cup 4 is removed by turning the member 1 upside-down and a new cup is placed in the member 1 for further use.

Thus it will be understood, that when using the above described device in connection with a puncture for a hypostasis reaction, an amount of blood which may be used for other tests or controls of the blood is obtained at the same time so that the usual cutting of an ear or similar part is not necessary.

I claim:

1. A device for use in collecting blood for blood tests, including a supporting member having a seat formed upon the intermediate portion thereof for receiving a collecting cup in predetermined position; a handle projecting rigidly upon the supporting member into accessible position ex-

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teriorly of the seat whereby to manipulate said supporting member; and means upon another portion of said supporting member disposed exteriorly of said seat for receiving the head portion of a syringe cannula in effective position to prevent rotation and longitudinal displacement thereof and cause the free end of the head portion of said cannula to extend to a point located within the circumference of the collecting cup.

2. A device for use in collecting blood for blood tests, including a substantially ring-shaped supporting member having an upwardly flaring intermediate opening forming a seat for a collecting cup; handle means projecting rigidly upon the supporting member into accessible position thereon whereby to manipulate said supporting member; and rigid guide means on a fixed portion of the latter member spaced a predetermined angular distance from the handle means for receiving the head portion of a syringe cannula in effective position to prevent rotation and longitudinal displacement thereof and cause the free end of the head portion of said cannula to extend to a point located within the circumference of the collecting cup.

3. A device for use in collecting blood for blood tests, including a supporting member for a collecting cup; a handle for the supporting member; and an upwardly open guide on said supporting member for receiving the head portion of a syringe cannula in a predetermined position in which the guide is effective to prevent rotation and longitudinal displacement thereof and so dispose the cannula that the free end of the head portion thereof extends to a point located within the circumference of the collecting cup.

4. A device for use in collecting blood for blood tests, including a supporting member having a seat formed upon the intermediate portion thereof for receiving a collecting cup in predetermined position; a handle projecting rigidly upon the supporting member into accessible position exteriorly of the seat whereby to manipulate said supporting member; guide means upon another portion of said supporting member distant from said handle having a guiding axis extending transversely of the peripheral edge of said supporting member, and said guide means also being disposed exteriorly of said seat and serving to receive the head portion of a syringe cannula in effective position to prevent rotation and longitudinal displacement thereof and cause the free end of the head portion of said cannula to extend to a point located within the circumference of the collecting cup; and a support located upon the side of said supporting member opposite to that upon which said guide means is located and disposed in a position to coincide with the guiding axis of said guide means for supporting a syringe connected to said cannula.

5. A device for use in collecting blood for blood tests, including a substantially ring-shaped supporting member having an upwardly flaring in-

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intermediate opening forming a seat for a collecting cup; side projections spaced apart on the supporting member and together serving as a handle; and a raised guide portion upon said supporting member having an upwardly opening guiding slit with the lower portion of the latter reduced in width, said guide portion with its upwardly open guiding slit removably receiving in the guiding slit thereof the head portion of a syringe cannula in effective position to prevent rotation and longitudinal displacement thereof and cause the free end of the head portion of said cannula to extend to a point located within the circumference of the collecting cup.

6. A device for use in collecting blood for blood tests, including a substantially ring-shaped supporting member having an upwardly flaring intermediate opening forming a seat for a collecting cup; side projection spaced apart on the supporting member and together serving as a handle; a raised guide portion upon said supporting member having an upwardly opening guiding slit with the lower portion of the latter reduced in width, said guide portion with its upwardly open guiding slit removably receiving in the guiding slit thereof the head portion of a syringe cannula in effective position to prevent rotation and longitudinal displacement thereof and cause the free end of the head portion of said cannula to extend to a point located within the circumference of the collecting cup; and a support for a syringe connected to said cannula coinciding with the axis of the slit on said guide portion and fixed on the side of said supporting member opposite to the side upon which said guide portion is located.

7. A device for use in collecting blood for blood tests, including a substantially ring-shaped supporting member having an upwardly flaring intermediate opening forming a seat for a collecting cup; side projections spaced apart on the supporting member and together serving as a handle; a raised guide portion upon said supporting member having an upwardly opening guiding slit with the lower portion of the latter reduced in width, said guide portion with its upwardly open guiding slit removably receiving in the guiding slit thereof the head portion of a syringe cannula in effective position to prevent rotation and longitudinal displacement thereof and cause the free end of the head portion of said cannula to extend to a point located within the circumference of the collecting cup; a cut-away portion in the seat for the collecting cup exposing a portion of the circumferential edge of the latter cup for facilitating pouring out the content of said collecting cup; and stop projections fixed on said supporting member at both side of said cut-away portions against which the cup rests when pouring out the contents thereof.

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No references cited.