

The Midwife.

ELECTRIC-HEATED WATER-JACKETED INCUBATORS.

Very few midwives, we believe, are really satisfied with the incubators now in use and will therefore study with interest the description by Dr. Julius Hess, which we publish from *The Modern Hospital*, of an Electric-Heated Water-Jacketed Incubator. Dr. Hess, who is Associate Professor and Head of the Department of Pediatrics, University of Illinois, College of Medicine, writes:—

To meet the requirements for the safe application of artificial heat to premature and weak infants, three conditions must be observed:

1. The heat must be of a fairly constant temperature, with a safe maximum.
2. A constant supply of fresh air must be available.
3. A normal average of humidity must be maintained.

I have attempted to meet these requirements by the construction of an electric-heated water-jacketed bed. The bed shown in Fig. 1 is constructed of heavy sheet copper, with inside measurements as follows: length, 30 in.; width, 17 in.; and depth, 13 in. The entire inner chamber is surrounded, except at the top, by a 1 in. water jacket. Covering the water is a layer of asbestos, and this, in turn, is covered by a copper jacket, making in all three walls of copper, with water between the first and second and asbestos between the second and third. The asbestos practically prevents heat radiation from the external surface, limiting heat radiation to the inner surface of the jacket

—that is, to sides and floor. At one end a water gauge glass with faucet registers the height of the water, and is also used for emptying the jacket during transportation and in filling the jacket.

In the floor of the water jacket a $\frac{1}{4}$ -inch pipe is inserted to carry off any water which might flow into the bed in case of a leak, thus avoiding all danger of flooding the crib in event of an accident to the water jacket.

The bed proper rests on a standard (Fig. 1), which is supplied with ball-bearing casters, or with porcelain shoes if preferred, allowing of easy transportation from one ward to another if desirable.

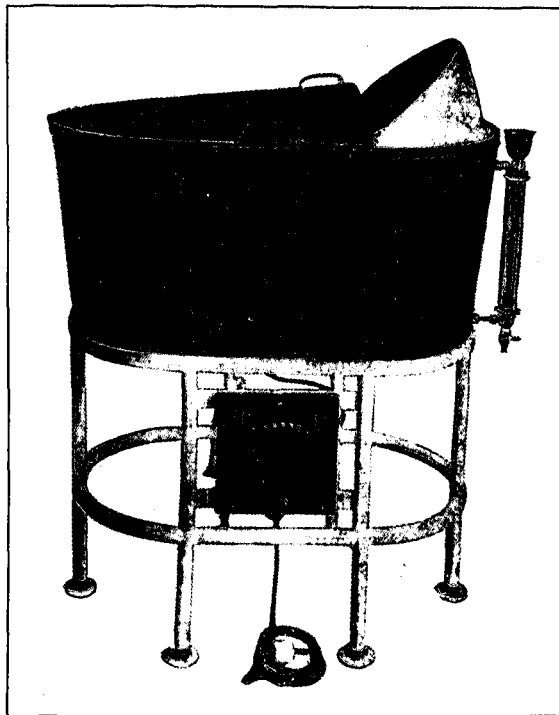
(The electric heating apparatus is then described.)

For the protection of very frail infants, a partial cover for the tub, 21 $\frac{1}{2}$ inches in length, is provided to shield them more completely from outside air currents. It is provided with a thermometer, so that the temperature within the tub can be ascertained by the nurse at all times. Further, a brass

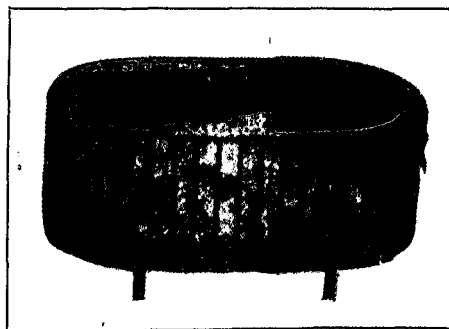
nickel-plated frame covered by a removable linen cover is provided in the form of a hood. This can be set over the open space not covered by the metal lid in case of great air currents and extremely cold nights. The hood raises the

temperature within the bed on an average of from 5 to 10° F., depending on the room temperature and current used, but does not interfere with perfect ventilation. The hood is made collapsible, and may be set at any angle desired as may be indicated.

The baby basket (Fig. 2), which is of the type used in many obstetric wards, is 28 by 14 inches and has a depth of 8 $\frac{1}{2}$ inches, thus allowing con-



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THE BABY BASKET.

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