

from the silt of an extinct glacial lake, first noted by Dr. Frank Leverett and published by him in 1914. The date is placed by the same authority as about 20,000 years ago or before even the first stage of Glacial Lake Agassiz. The site has been carefully studied by Dr. Stauffer and Dr. Thiel, Minnesota geologists, who concur in Dr. Leverett's findings. The skull is of a nature to suggest an early dating, aside from the geological evidence. It is of a generalized type of *Homo sapiens*,

showing distinct Mongoloid affinities. The teeth are unusually large and retain certain features of still earlier mankind. The rounding of the borders of the nasal opening is extraordinary and is strongly reminiscent of conditions seen in anthropoid apes. The extreme narrowness of the nasal opening, together with its lack of lower borders, and with its rudimentary spine, stamp this skull as a most unusual specimen.

(To be concluded)

## SCIENTIFIC APPARATUS AND LABORATORY METHODS

### AN ADJUSTABLE METAL MOULD FOR PARAFFIN EMBEDDING

THE mould described here is unlike any of the types more or less commonly used, such as folded paper boxes, glass dishes and the adjustable metal moulds consisting of L-shaped bars for sides and a flat plate for bottom. It (see Fig. 1) consists of two metal

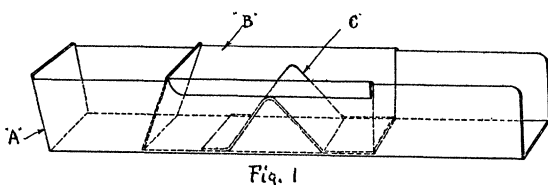


Fig. 1

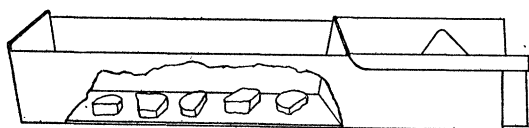


Fig. 2

troughs, A and B, both open at one end. Trough B fits snugly into trough A, closing its open end, and so forms a trough closed at both ends, easily adjustable in length by simply sliding B either to or from the closed end of A. The sides of both troughs slope outwardly, as also do the closed ends when the two troughs are fitted together to form the mould. The upper portions of the sides of trough B are folded over outwardly and, when B is in position as one end of the mould as shown in the figure, engage the upper portions of the sides of trough A, thus holding trough B securely in place anywhere within the working length of the mould. A folded metal strip C serves as a finger piece for conveniently adjusting the size of the mould. The dimensions of the mould from which the figures here shown were drawn are: Trough A, length 6 inches, inside width at bottom 1 inch, at top  $1\frac{1}{2}$  inch, depth 1 inch; trough B, length at bottom  $2\frac{1}{2}$  inches, other dimensions such as to fit snugly within trough A. Moulds of different dimension, of course, are simply matters of particular wants and individual

preferences. As evident from the description and the figures, the sides and ends of castings from this mould will be plane surfaces sloping towards the bottom, or face, of the castings, a shape that will be appreciated when trimming them either before or after fastening them to the cutting platform of the microtome. From its constructional features, this mould has been found peculiarly well suited for specimens that are to be located in some particular plane or axis and, also, for such specimens as may be difficult to locate in castings when surrounded by considerable masses of paraffin, for instance, protozoa and scrapings of tissues. The mould can be narrowed in one axis and so adjusted that the specimens are enveloped on two sides by a minimum thickness of paraffin, while the sloping sides and ends afford a good view and easy access in arranging the specimens on the bottom of the mould, or face of the casting. In the case of very small bodies, such as Protozoa, the sloping sides of the mould focus them, so to speak, on the face of the casting. With small visible bodies the thin bar or edge of the semi-transparent paraffin permits them to be more or less clearly seen and properly located on the cutting platform of the microtome. As a permanent device, this mould saves both loss of time and minor inconveniences attendant on the making and using of paper box moulds; compared with the adjustable L-shaped metal moulds, because of its construction it is not subject to leakage of paraffin caused by dislocation of its parts by jars or other accidents, not infrequent occurrences with the L-shaped bars of such adjustable moulds.

Should the mould herein described appeal to other workers with paraffin, information regarding it may be had of The Arthur H. Thomas Company, Philadelphia, Pa.

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### A VACUUM TUBE OSCILLATOR FOR CHLADNI PLATES

THE three-element vacuum tube used so extensively in radio telephony may be made to act as a detector,