3601

Hemolytic Action of Beef Serum in Relation to Age of Cattle.

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In this study the hemolytic action of old cattle serum with that of calf serum was compared. Beef blood was obtained at the Stock Yards. It was drawn directly from the large neck blood vessels and immediately defibrinated. The blood was then centrifuged, and the serum tested for hemolytic power not later than 6 hours after the death of the animal. Rabbit red blood cells were washed repeatedly with physiological salt solution, and one cubic centimeter of a 5 per

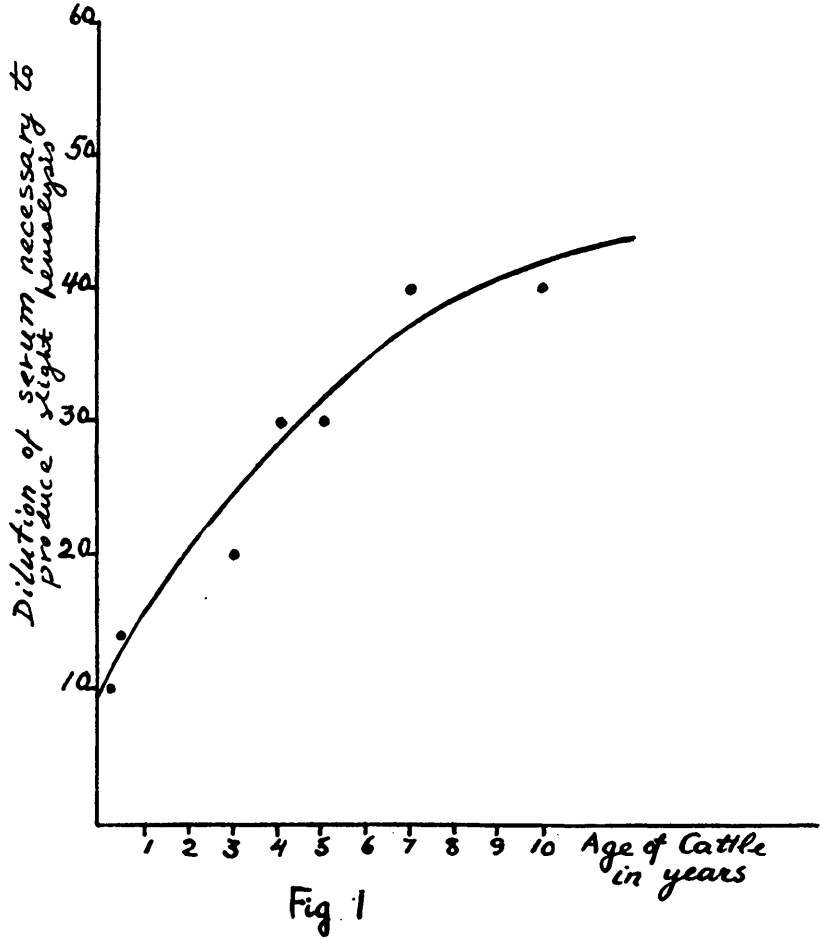

Fig. 1

cent suspension of these cells was mixed with one cubic centimeter of diluted beef serum (1:10). If the hemolysis was complete, the serum was further diluted until it no longer caused any hemolysis of the rabbit erythrocytes. The serum of 6 adult cattle of various ages, two calves, and three embryos was tested. Fig. 1 shows the increasing hemolytic power of the serum of cattle with increasing age. Fig. 2 shows the comparison between the hemolytic action of serum from 5-months old calf and a 12-year old ox. It will be seen that in a dilution of 1:20 the "old" serum produces complete hemolysis, while "calf" serum in the same concentration has no hemolytic power whatever.

Addition of "young" serum to "old" only partially neutralizes the hemolytic power of the latter. This was found to be the case in four different experiments.

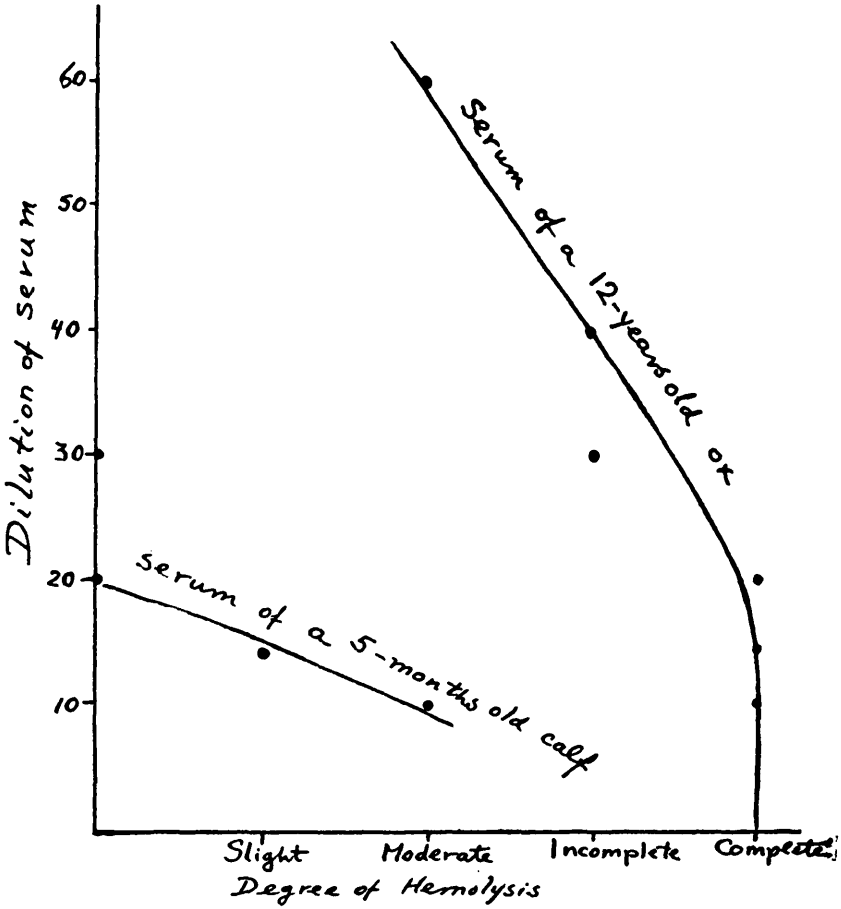

Fig. 2

The hemolytic power of beef serum that is kept in the ice box (3° C.) remains unchanged for 48 hours, then begins to deteriorate. It is thought that the marked difference between the hemolytic power of serum from animals of different ages may be an example of other changes accompanying old age, and further tests are being planned to bring these to light, and thus, perhaps elucidate the cause of senility.

This is a preliminary communication.

3602

A Simple Arrangement for Platinizing Electrodes.*

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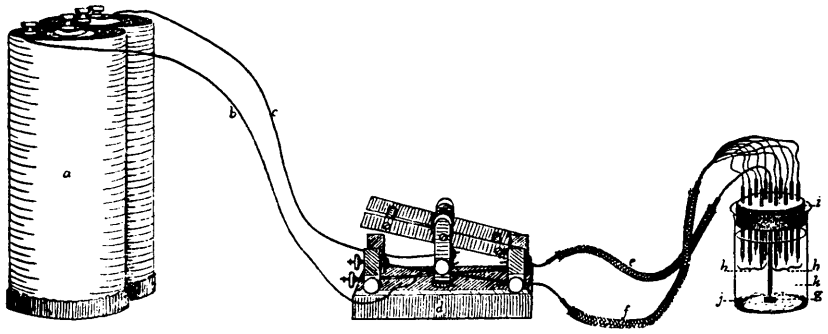
The accompanying figure shows a simple arrangement for the electrolytic deposition of platinum upon electrodes for hydrogen ion work.



A battery of two dry cells, *a*, is connected in series to a commutator, *d*, by wires, *b*, and *c*. The commutator is connected to a single central anode, *g*, by wire *e*, and to the cathodes, *h*, by branching of the cable wire, *f*. The electrodes, *g*, and *h*, are loosely held in position by insertion through the holes of the flat cork, *i*, which is supported in the 100 cc. beaker, *j*, in such a way that the metal of the electrodes is immersed in the platinic chloride solution, *k*. The electrode, *g*, consists of a platinum foil connected to a short piece of

* Demonstrated at the Federation of American Societies of Experimental Biology, Rochester, N. Y., April 15, 1927.