

The localities where these rocks are best exposed are the Caballos Mountains, the Hillsboro and Kingston mining districts on the east side of the Black Range, in the vicinity of Cooks Peak and the Florida Mountains. In these places the Cambrian, Ordovician and Devonian are found. At Lake Valley and west of Silver City, near the mines of Chloride Flat, in addition to the foregoing formations, true Silurian limestone separates the Devonian and Ordovician strata.

A more extended account of these formations will appear in a forthcoming number of the *American Journal of Science*.

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A NEW METHOD FOR THE HOMOPLASTIC TRANSPLANTATION OF THE OVARY.

THE transplantation of the ovaries has been performed by Knauer, Gregorieff, Arendt, Ribbert, Schultz, Herlitzka, Foa, Guthrie, etc. These experiments showed that young ovaries are often able to 'prendre' (or grow successfully), while the transplantation of adult ovaries is practically unsuccessful. These negative results are probably due mainly to the defective technic employed, the usual method being to sew the transplanted ovary to the peritoneum, and leaving to nature the reestablishing of the circulation. In order to obtain constant results, it is necessary to use a much more precise method. Therefore, we attempted to transplant an ovary by modifying as slightly as possible its circulation, its innervation and its connections with the Fallopian tube.

We used our method of *transplantation in mass*, which permits the transplantation of ovaries of cat, with their vessels, and preserves a part of the nervous apparatus of the organ.

The abdomen of a cat *A* being open, a large peritoneal flap, extending from the right ovary to the portion of the aorta corresponding to the mouth of the ovarian artery, is cut by proper incisions. The Fallopian tube is severed near its fimbriated extremity. The posterior surface of the peritoneal flap is carefully separated from all the posterior tissues

excepting the ovarian vessels, which are permitted to retain their connection with it. Then the segments of the aorta and vena cava, from which the ovarian vessels originate, are extirpated. The specimen consisting of the ovary and a part of the Fallopian tube united to the segments of the aorta and vena cava by a cellulo-peritoneal ribbon and the ovarian vessels, is then placed in a glass of isotonic sodium chloride solution.

The abdomen of a cat *B* is then opened by performing a right half circular transversal laparotomy. The right ovary and the external part of the Fallopian tube are resected. The aorta and vena cava are cut at the point of the mouth of the ovarian vessels. The anatomical specimen taken from cat *A* is removed from the salt solution and put into the abdominal cavity of cat *B*. The segments of the aorta and vena cava of cat *A* are interposed between the cut ends of the aorta and vena cava of the cat *B*. The peritoneal flap is stretched on the posterior abdominal wall in such a manner that the transplanted ovary takes the place of the normal ovary. The circulation through the aorta and vena cava is reestablished. The red blood flows through the ovarian artery, the ovary becomes rosy, and the dark circulation is slowly established through the venous plexus and the ovarian vein. After a few minutes the circulation appears similar to that of the normal ovary. The end of the transplanted Fallopian tube is united to the end of the normal one. At last the suture of the abdominal wall is performed.

This operation is not dangerous, for the animals after a few hours appear to be in normal condition. Our experiments were performed on ordinary laboratory animals of uncertain breeds. They are interesting, therefore, only from a technical point of view. We intend to very soon perform a series of similar operations on pure bred animals, preferably dogs or pigs, with a view of studying the problem of transmission of characters and related problems.

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