

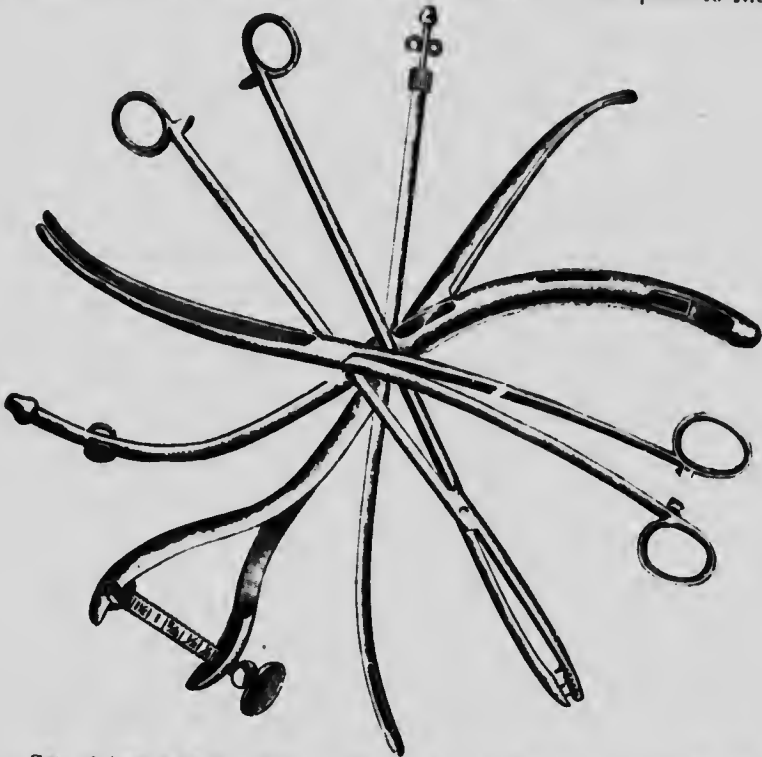
or otherwise. Among the methods used for this purpose may be mentioned the abortin test, the agglutination and complement fixation tests.

### THE ABORTIN TEST.

This test is known also as the reaction method and consists of the injection, under or in the skin of suspected females, with a substance called abortin, which is an extract prepared from artificially grown cultures of the bacillus of cattle abortion. It is used in a manner somewhat similar to that in the application of the subcutaneous and intradermal tuberculin tests. The Subcutaneous Abortin test is manifested and interpreted by a rise in temperature exceeding 104 deg. Fahr., which begins about the fourth hour after injection and lasts usually until about the fourteenth hour.

The Intradermal Abortion test has been advocated as a better method. The reaction by this method is manifested by a swelling of the skin at the point of injection, which is made at the root of the tail.

Attempts have been made to extol commercially the use of these tests. Their reliability, however, is doubted, as the results have not proved uniformly satisfactory. It would appear that while a rise of temperature or a local swelling after injection of abortin may be indicative of infection, on the other hand the absence of this reaction is not considered a safe criterion as to the freedom from infection. This is owing to the fact that many infected animals fail to respond to the test.



Set of instruments used in the operative treatment of irrigating the womb of cows to overcome sterility following abortion. The above set includes the Albrechtsen uterine dilator and return flow catheters and a pair of the Knowles uterine forceps.