in eleven birds. The prospective birds were kept under close observation so that the exact time of laying could be recorded and then preparations were made for opening the body cavity as soon as possible. These preparations, including the anesthesia, required from 10 to 20 minutes. Four birds were found to have ovulated before the ovary could be exposed.

Of the eleven hens in which ovulation occurred under observation, only two had the infundibulum enclosing the ovum at the time of bursting of the theca. In two others, the ova were picked up immediately, indicating that the infundibulum and the follicle must have been very closely associated at the time of ovulation. In three cases, although the bird remained alive and apparently normal, the released ova were not picked up by the infundibulum. In the four other cases the infundibulum began to engulf the ovum within periods of 4 to 10 minutes after the rupture of the follicular membrane. In four birds, where the ovary was exposed within 14, 15, 18 and 20 minutes after laying the previous egg, ovulation had already occurred when the abdominal cavity was opened.

At the time of ovulation the blood vessels in the cephalic end of the oviduct were greatly congested. This portion of the oviduct was also very active. There was some indication of unusual enlargement of the blood vessels of the graffian follicle. Slightly in advance of the rupture of the follicular membrane the blood supply appeared to be reduced and there was a perceptible increase in the width of the stigma. The ovum to be released varied widely as to its position in the ovary.

The act of rupturing the follicular membrane was instantaneous. The released ovum was very much flattened and practically assumed the shape of the cavity into which it fell. In the first ovulation observed the ovum was so devoid of shape that the observers gained the impression that the vitelline membrane had been ruptured. The action of the infundibulum in engulfing the ovum seemed to be entirely random. It would partially engulf the ovum and then recede. The wave-like advances and recessions of the infundibulum sometimes occurred several times. The enclosing of the entire ovum may require as much as 30 minutes. When entirely enclosed the pressure exerted on the ovum by the musculature of the oviduct was very evident. In the infundibulum, where the progress of the egg was more rapid than elsewhere, the shape of the ovum was much distorted, sometimes being much elongated and at other times assuming dumb-bell shape.

Our observations would indicate that it is not necessary for the egg to be ovulated directly into the infundibulum. In fact most of the ovulations seen were not of this type. This study demonstrates that it is possible for the infundibulum to pick up the ovum after it has been released in the cavity about the ovary. In no case did the infundibulum appear to be exerting any pressure upon the follicle previous to ovulation. It is believed that the few cases where the infundibulum was around the ovum when released were purely chance situations, since the infundibulum is very active at this time and may be in contact with any part of the ovary. At times the infundibulum was seen to enclose partially the immature follicles.

In addition to making observations on the act of ovulation we were able also to secure practically complete time records of the passage of the egg down the oviduct for five birds. The positions of the egg were marked at 15-minute intervals by means of a shallow stitch taken in the wall of the oviduct immediately behind the egg. After the egg had traversed the length of the oviduct the organ was removed and records were made of the distances between stitches. Our observations do not fully agree with the statement made by previous workers as to the time required for egg formation in each portion of the oviduct. Earlier workers have depended entirely upon autopsies for their data. The average results from the five birds studied would indicate that the following were the periods spent by the egg in the various parts of the oviduct: Infundibulum—18 minutes; albumin secreting section—2 hours and 54 minutes; isthmus—1 hour and 14 minutes; uterus and vagina—20 hours and 40 minutes.

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