

Extracts and Abstracts.

ON RUBUS IDÆUS, L.; ITS AFFINITIES AND ORIGIN.

BY F. W. C. ARESCHOUG.

AMONG the fruticose *Rubi* now growing in Europe, *R. Idæus*, L., seems to be the most isolated species. All the others are so closely connected by intermediate forms, that they may be said to form a continuous series; but this species has no intimate relation with any of them. The chief character of *R. Idæus*, L., lies in its fruit separating from the receptacle; but there are also many other peculiarities. In the first place, I may mention that the bark scales off more or less completely from the stem during the second year, which is not the case with the other shrubby Brambles growing in Europe. In these the fruit is usually dark, of a deep red or blue colour, whilst that of *R. Idæus* is crimson or amber-coloured. Further, *R. Idæus*, L., has a great tendency to produce shoots from the subterranean parts, and very often you may find such shoots at a distance of many feet from the shrub from which they derive their origin. According to Prof. Babington (*Brit. Rubi*, p. 42), this species has a creeping rhizome, which is with probability supposed to produce the buds. As I have had no opportunity of examining the development of *R. Idæus*, L., from its germination, I cannot with certainty decide whether the subterranean parts from which these shoots proceed are rhizomes or true roots. Their anatomical structure, however, agrees with that of the root, in wanting pith; neither are they covered with aciculi and scales, both of which are not wanting on the subterranean parts of the shoots. I therefore suppose the root to produce the buds, and the same conclusion is also made by Kuntze (*Reform. deutscher Brombeeren*, p. 26). This production of buds on the root I have never seen in any other European species. However, I cannot omit to mention that Dr. Focke (*Nachträge zur Brombeerflora der Umgegend von Bremen*, p. 795) represents *R. fruticosus*, L. (*R. plicatus*, Whe.), as often propagating itself in the same manner as *R. Idæus*, L., though I never yet succeeded in proving the assertion. To the peculiarities already indicated as characterising *R. Idæus*, L., many others may be added which are more or less rarely to be found in other species. Not to mention that the flowering season of this species begins much earlier than that of the others, so that its fruit has come to maturity when that of the other species has but just begun to be formed, it may be sufficient to refer to the always erect and very glaucous stems; the setaceous purple prickles; the pinnate leaves covered with stellate hairs above; the few-flowered corymbose panicles, the lower of which come from the axils of the perfect leaves; the pendulous flowers; the narrow, always erect petals; the short stamens, erect or inclined towards the inside, which are all of equal height, and arranged in a close whorl; and the downy fruit—all which characters are either not at all, or at least very seldom, found in the other European species.