




On New and Rare British Arachnida.

By the Rev. O. PICKARD-CAMBRIDGE, M.A., F.R.S.

 MY own outdoor observations have been, I regret to say, still very limited during the past year; but by the welcome assistance of several correspondents, who have sent to me the results of their labours, and kindly allowed me to utilise them, I am enabled to report a good increase to the List of British Arachnids, mostly Spiders (*Araneidea*); and also to make some rectifications of synonyma and notes on scientific and other points.

I have now to record the addition of five new and hitherto undescribed species of *Araneidea*, two others known on the Continent of Europe, but not before recorded in Britain, and another, of which the female is now recorded and described as new to science. Besides the above, Dr. A. Randell Jackson has, since the publication of my report in the Proceedings of our Club for 1905, described a spider new to science, in the Proc. of the Chester Soc., and two others not before recorded as British, and one other has been recorded, for the first time in the British Islands, by Mr. Pack Beresford. These also will be found recorded and described in the following list.

Among those who have kindly sent to me collections and examples of Arachnids I would especially mention the following,

to all of whom my best thanks and acknowledgments are due:—

Dr. A. Randell Jackson, of Chester; Mr. W. Falconer, of Slaithwaite, near Huddersfield; Dr. Carr, University College, Nottinghamshire; Mr. Horace Donisthorpe, 56, Kensington Mansions, London; Mr. Denis R. Pack Beresford, Fenagh House, Bagenalstown, Ireland; the Rev. W. E. Hull, Nine Banks Vicarage, Northumberland; Mr. H. Wallis Kew, 9, Queen's Road, Bromley; Mr. W. Ruskin Butterfield, Hastings, Sussex; Mr. George Potts, Benthall House, Broseley; the Rev. J. H. Bloom, Whitchurch, Stratford-on-Avon; Mr. F. C. Woodforde, Market Drayton, Salop; Mr. Robert Godfrey, Edinburgh; Mr. George Nicholson, late of the Royal Gardens, Kew; Mr. H. W. Freston, Westfield, Poynton, Cheshire; and Mr. G. H. Oliver, Bradford, Yorkshire.

For all other information connected with the Arachnida in the following List I would refer to "Spiders of Dorset, 1879-81," and subsequent papers published by the Dorset Field Club in their Annual Proceedings, 1882-1906, also to the "List of British and Irish Spiders," published by Sime and Co., 1900, as well as to "Monographs on the British *Phalangidea* or Harvest Men, 1890; The British *Chernetidea* or False Scorpions, 1892, published in the Dorset Field Club Proceedings; and to a paper By Dr. A. Randell Jackson in Proceedings of the Chester Society of Natural Science, Literature, and Art Part VI., No. 1, May 1, 1907, pp. 7, Pl. 1.

NOTES ON NEW AND RARE BRITISH ARACHNIDA, 1906.

ORDER ARANEIDEA.

Family DRASSIDÆ.

Agroeca inopina, Cambr.

An adult male, received from Dr. A. Randell Jackson, taken at Hastings, 1906. I have recently received this

spider in some numbers from Guernsey, from Mr. E. W. Marquand, a resident in the island, to whom I am indebted for some extensive collections of spiders made in Guernsey.

Agroeca notata, Cambr.

Agroeca notata, Cambr., Proc. Dors. N.H. and A.F. Club, Vol. XXIII., p. 30, 1902.

The Rev. J. H. Bloom has sent me immature examples of this species from St. Margaret's Bay, Dover. Folkestone is the only locality whence it had previously been recorded (see Proc. Dorset N.H. and A.F. Club, XXXI., p. 30, 1902).

Family DICTYNIDÆ.

Dictyna variabilis, C. L. Koch.

An adult male of this rare and local species was sent to me from Kew by Mr. George Nicholson; and both sexes by Dr. A. R. Jackson, from Hastings, where they were found by Mr. Bennett.

Protadia subnigra, Cambr.

Females were found and sent to me by Mr. J. H. Wood, of Farrington, Hereford, from Woolhope, in Herefordshire.

Family AGELENIDÆ.

Cryphoeca recisa, sp. n. Pl. A., Figs. 1-3.

Cryphoeca diversa, Cambr., Proc. Dors. N.H. and A.F. Club, XXVI., p. 144, 1905, and Dr. Carr, Trans., Notts. Naturalists' Soc.

This spider was supposed to be *C. diversa*, Camb. (l. c. supra). On further examination and comparison it appears to be a quite distinct species. A more detailed description is given of it (p. 136, postea). It was found in Sherwood

Forest by Dr. Carr, of University College, Nottingham. (Cf, also J. W. Carr, Nott. Naturalist Society, 1905-6, p. 48).

Cryphoea diversa, Cambr.

Adult and immature females, found in ants' nests, were received in the spring of 1906 from Wellington College, near Woking, from Mr. H. Donisthorpe.

Coelotes terrestris, Wid.

Examples of this spider, which might easily be mistaken for the more common *C. atropos*, Walck., have been received during the past year from Scarborough, Mr. Gilchrist; Bexhill, Hastings, and St. Leonard's-on-Sea, Mr. W. Ruskin Butterfield; Northumberland, Dr. A. R. Jackson; and Berwickshire, from Mr. D. Pack Beresford.

Fam. HAHNIIDÆ.

Hahnia pusilla, C. L. Koch, Pl. A., Figs. 7-11.

? *Hahnia pusilla*, C. L. Koch, 1841, A. R. Jackson, Proc. Chester Society, supra cit.

Adults of both sexes of this species were found by Dr. A. R. Jackson and Mr. W. Falconer in Delamere Forest, Cheshire, in the early summer of the past year. It had not been recorded before as British.

Hahnia nava, Blackwall, Pl. A., Figs. 4-6.

This is a widely distributed and often an abundant spider, running in early summer on walls, railings, and also on the surface of the ground and among grass. It has been received in 1906 from several parts of England. As the female has not, I believe, been figured adequately by English authors, I have given in Pl. A., Figs. 4-6, a sketch of the characteristic features of both sexes.

Fam. THERIDIIDÆ.***Theridion impressum*, L. Koch.**

Theridion impressum, L. Koch-Cambr., Proc. Dors. N.H. and A.F. Club, XXVI., p. 45, 1905, and XXVII., p. 75, 1906.

Two adult females were sent to me from Ewias Harold, near Hereford, by Mr. H. E. Jones, in 1906. I have also lately found examples of this species among specimens of *Theridion sisyprium*, Clk., taken at Swanage several years ago.

***Theridion riparium*, Blackw.**

Immature examples were sent to me in June, 1906, from Woking, where they were found by Mr. H. Donisthorpe in the nests of an ant (*Formica sanguinea*). Immature examples were also sent to me from Nottinghamshire by Dr. Carr, of University College, Nottingham.

***Crustulina sticta*, Cambr.**

An adult female example of the fine jet-black variety of this rare and local spider was received from Mr. Ruskin Butterfield, by whom it was found in the Pevensey Marshes, Sussex.

***Laseola jucunda*, Cambr., Pl. A., Figs. 13, 14, 15.**

Laseola jucunda, Cambr., Proc. Dors. N.H. and A.F. Club, Vol. XXIV. pp. 152 and 162.

Adults of both sexes have been recently sent to me from Portland, where they were found under pieces of broken rock and stone by Dr. A. R. Jackson. These fresh examples show that the species may easily be distinguished from *Laseola inornata*, Cambr. (which is found also at the same time and in similar situations) by its rather larger size, the less globular form of the abdomen and much darker general hue. The legs have the dark yellow-brown markings on

the first, second, and fourth pairs, of a greater extent than in *L. inornata*, in which species these markings are more distinct and annulose, and give the spider a somewhat spotted look. The genital aperture also is of quite a distinct form from that of *Laseola inornata*. I have found *L. jucunda* lately among spiders taken several years ago at Swanage, but hitherto overlooked.

Laseola inornata, Cambr.

Laseola dissimilis, Cambr., Proc. Dors. N.H. and A.F. Club, Vol. XXVII., pp. 75 and 84, Pl. A., Fig. 1.

The spider recorded as the female of *L. dissimilis* (l.c. pp. 75, 84, and figured Pl. A., Fig. 1), proves to be that of *Laseola inornata*, Cambr. The female, therefore, of *L. dissimilis* has yet to be discovered.

Euryopis flavomaculata, C. L. Koch.

Adults of both sexes from Delamere Forest, where they were taken by Dr. A. R. Jackson, in July, 1906.

Enoplognatha mandibulare, Lucas.

Enoplognatha caricis, Fickert-Cambr., Proc. Dors. N.H. and A.F. Club, Vol. X., p. 114, Pl. A., Fig. 4, 1889, and Ibid. List of British and Irish Spiders, p. 24.

Recent examination and comparison prove the spider above recorded to be *Theridion mandibulare*, Lucas—a spider of wide distribution both on the continent of Europe and in Asia. I have also lately received it from Guernsey, from Mr. E. T. Marquand. It was described many years ago (1899), from the Island of Madeira, by the late Mr. Blackwall, under the name of *Epeira diversa*; and I have received it subsequently both from the islands of Jersey and Sark. (See Proc. Zool. Soc., London, 1872, p. 295.)

Robertus arundineti, Cambr.

An adult male, Northampton, Mr. D. Pack Beresford, 1906.

Robertus insignis, sp. n., Pl. A., Figs. 16-19.

An adult male, allied to *R. lividus*, Bl., received from Norwich. (For description see postea, p. 138.)

Onesinda minutissima, Cambr.

Adults of both sexes of this exceedingly minute spider have been met with in some abundance near Chester, by Dr. A. R. Jackson and Mr. W. Falconer in 1906.

Teutana nobilis, Thor.

Teutana nobilis, Thor.-Jackson, Proc. Chester Soc., 1907, Part VI., No. 1, p. 3, Pl. I., Fig. 5-9.

An adult female was sent to me for examination by Dr. A. R. Jackson during the past summer. It was found by Mr. Bennett at or near Hastings, Sussex, but under what circumstances or exactly in what habitat I have not been able to ascertain satisfactorily. This is a point of some importance, as I have received several examples (of the same sex) from a fruit store at Reigate and from a greenhouse near that place, through the kindness of Mr. Henry Speyer, imported from the Canary Islands, in packages of bananas. This raises a suspicion that the Hastings example may be also a foreign importation. The type example of *Steatoda Clarkii*, Cambr. (which I believe to be of this species) was found near Torquay, in Devonshire, and possibly may also have been imported. It is a large, handsome, and showy spider in the adult state. I have not seen the male.

Linyphia furtiva, Cambr.

Found at Hastings by Mr. Bennett and received from Dr. A. R. Jackson, 1906.

Linyphia impigra, Cambr.

Received from Mr. Ruskin Butterfield, by whom it was found in the Pevensey Marshes, Sussex, in 1906. A very local species, but would probably not be rare where it occurs.

Leptyphantes patens, sp. n., Pl. A., Figs. 20-25.

Both sexes, adult, found in ants' nests near Wellington College, Wokingham, and kindly sent to me by Mr. H. Donisthorpe. (For detailed description see p. 139, postea.)

Tmeticus reprobus, Cambr.

Adults of both sexes found at St. Margaret's Bay, near Dover, by the Rev. J. H. Bloom and kindly sent to me by him in July, 1906.

Tmeticus emptus, Jackson, Pl. A., Figs. 26-31.

Centromerus emptus, Jackson, 1907 Proc. Chester Soc., 1907, Part VI., No. 1, p. 4, Pl. I, Fig. 16-22.

Both sexes were sent to me by Dr. A. R. Jackson from Delamere Forest in 1906. Allied to *T. contritus*, Cambr., and *T. prudens*, Cambr.; but quite distinct. (For detailed description see p. 140, postea.)

Tmeticus nigricauda, sp. n., Pl. A., Figs. 32, 33, and Pl. B., Figs. 34-41.

Adult females were found in April, 1906, in heaps of old bones near Queenborough, Kent, and again the same sex occurred in heaps of dead sticks and vegetable refuse at Enfield, Essex. Subsequently (November, 1906) adults of both sexes were found in a similar habitat, also at Enfield. It is a remarkably striking and distinct species. (For details see p. 141, postea.)

Tmeticus fortunatus, Cambr. Pl. B., Figs. 42-44.

An adult male found by myself on the column of the porch at the Rectory, Bloxworth, on May 21st, 1906; with

this was a female, which I have reason to believe to be that sex of this species, hitherto unrecorded. (For description see postea, p. 142.)

Tmeticus serratus, Cambr. Pl. B., Figs. 45-48.

Erigone serrata, Cambr. Proc. Zool. Soc., London, 1875,
p. 325, Pl. 44, Fig. 2.

An adult male of this species was found near Huddersfield in 1902 by Mr. W. Falconer, but was at the time mixed up with *T. silvaticus*, Blackw. It is a smaller spider than this last, and, besides other differences, that of the structure of the palpal organs furnishes a good character for the distinction of the males.

This is the first record of the species as British.

Microneta beata, Cambr.

Microneta beata, Cambr., Proc. Dor. N.H. and A.F.
Club, Vol. XXVII., p. 90, Pl. A., Fig. 27-31.

Adults of both sexes were found in fair abundance by Mr. Ruskin Butterfield, in the Pevensey Marshes in 1906. It would be very difficult, even if possible, to tell this species before capture, from *M. rurestris*, C. L. Koch; but the legs of *M. beata* are generally more or less suffused with brown; while those of *M. rurestris* are of a clear yellow.

Maso Sundevallii, Westr.

This spider, one of our smallest species, is not rare among moss, or taken by sweeping and brushing low herbage in woods; but I have only once detected it in any kind of snare or nest. In the summer of 1906 I found an adult female in a slight web-nest formed in a curled leaf of a low-growing plant in the flower garden at Bloxworth Rectory.

Gongylidiellum latebricolum, Cambr.

Received from Delamere, where it was taken by Dr. A. R. Jackson.

Diplocephalus protuberans, Cambr. Pl. B., Figs. 49, 50.

Erigone protuberans, Cambr., Proc. Zool. Soc., Lon., 1875, p. 218, Pl. 29, Fig. 24.

Diplocephalus protuberans, Cambr., A. R. Jackson, Proc. Chester Soc., 1907, Part VI., p. 3, Pl. I., Fig. 10-15.

An adult male found by Mr. R. S. Bagnell, Gibside, Durham, and submitted to me by Dr. Jackson. New to Britain.

Entelecara acuminata, Wid.

The male in the adult state was received from Herefordshire (Mr. H. E. Jones, of Ewias Harold, near Hereford), and others of both sexes from the Kew Gardens (Mr. George Nicholson).

Entelecara Jacksonii, Cambr.

Both sexes in the adult state were sent to me in 1906, from Oakmere, Cheshire, where they were found by Dr. A. R. Jackson. A very distinct, and as yet rare, spider.

Thyreosthenius biovatus, Cambr.

Adult females were found by myself several years ago among débris and grass stems, in woods at Bloxworth, but have been overlooked until recently. Its most usual habitat appears to be in the nests of *Formica rufa*; but besides the above, I have specimens from other localities quite away from these nests. It does not seem to have been observed yet, what the terms are on which it inhabits the ants' nests, or whether these are used as breeding places for the spiders or not; or whether they only serve as shelter principally during the winter. The ant is large and protected by its coriaceous epidermis while the spider is very minute and delicate, so that it seems difficult to imagine the latter making a prey of its hosts in any way—either in the egg or larva state—but, of course, there may be very minute insects in the ants' nests, which in the larva or perfect state

would furnish food for the spiders. The subject of insects and, besides the spiders mentioned, various other species of arachnids, dwelling in ants' nests is a very interesting one. It has been closely worked at by Mr. H. Donisthorpe, to whom I am indebted for many species of spiders he has found in nests of several species of ants. The greater majority of the spiders, however, found in ants' nests are certainly, I think, simply there for purposes of warmth and shelter during winter, and are mostly immature.

Lophocarenum stramineum, Menge. Pl. B., Figs. 51-53.

Lophocarenum stramineum, Menge, Preuss, Spinn II., p. 199, Pl. XXXVIII., Fig. 96, and E. Simon de Arachnides France, V. p. 678.

Adult males of this spider were found on the Island of Lambay, Ireland, in June and October, 1906, by Mr. Denis Pack Beresford. Cf., "The Irish Naturalist," Vol. XVI., p. 61-63, 1907. It had not before been recorded in Great Britain or Ireland.

Araeoncus erratus, sp. n. Pl. B., Fig. 54-56.

Araeoncus vaporariorum, Cambr., F. O. P. Cambr. Ann. and Mag. N.H., ser. 6, Vol. X., p. 395, 1892, and cf., O. P. Cambridge, List of Brit. and Ir. Spiders, p. 45, footnote.*

As the type of the species, recorded l.c. supra, is now in my possession, I am able to say that it is quite distinct from *Araeoncus vaporariorum*, Cambr., of which last I also have the type specimen. (For details see postea, p. 145.)

Metopobactrus prominulus, Cambr.

Microneta territa, Cambr. Proc. Dors. N.H. and A.F. Club, Vol. XXVII., pp. 77 and 88, 1906, Pl. A, Fig. 19-21.

The researches of Dr. A. R. Jackson and Mr. W. Falconer prove that the female spiders I had thought to be

that sex of *M. territa* are those of *M. prominulus*, Cambr. Of this last I obtained the British type-specimens of the male many years ago at Bloxworth, but never succeeded in finding the female there. It is apparently a more abundant spider in the north than in the south of England.

Styloctetor uncinus, Cambr.

Styloctetor broccha, J. H. Carpenter. List of Spiders of Ireland, Proc. Roy. Irish Acad., 3rd ser., Vol. V., No. 1, p. 165 (1898), and Irish Naturalist, VII., p. 164, O. P. Cambridge, Proc. Dors. F. Club, Vol. XX., p. 7, and List of Brit. and Ir. Spiders, 1900, p. 46.

Typical examples of *S. uncinus*, Cambr., have lately been compared with Mr. Carpenter's Irish example, with the result that the two appear to be identical.

Cnephalocotes elegans, Cambr.

An adult male, Chester, Dr. A. R. Jackson, 1906.

Cnephalocotes interjectus, Cambr.

An adult male, Sussex, from Mr. D. Pack Beresford, Fenagh House, Bagenalstown, Ireland.

Tapinocyba subitanea, Cambr.

Adults of both sexes from St. Leonards-on-Sea found by Mr. Ruskin Butterfield, and in some abundance by Mr. F. P. Smith.

Wideria melanocephala, Cambr.

Adults of both sexes, Delamere, Chester, Dr. A. R. Jackson, 1906.

Walckenaera obtusa, *Blackw.*

Both sexes adult, Hexham, Northumberland, 1903, and in 1906 Winlaton-on-Tyne (per Mr. R. Bagnall),

Dr. A. R. Jackson (Trans. Nat. Hist. Soc. of Northumberland, Durham, and Newcastle, N.S., Vol. I., p. 377, 1906).

***Tigellinus furcillatus*, Menge.**

Both sexes, adult, were found by Dr. A. R. Jackson at Delamere, Cheshire, in 1906. This is one, as yet, of our rarest spiders, and certainly one of the most remarkable in the form of the caput. The only previous British record is at Bloxworth many years ago.

***Ceratinella scabrosa*, Cambr.**

Both sexes, adult, near Chester, Dr. A. R. Jackson, 1906.

***Eugnatha striata*, L. Koch.**

An adult of each sex found and kindly sent me by Mr. H. Donisthorpe from the borders of Sutton Broad, Norfolk. The only previous British record is near Wareham, Dorset, where an immature male was taken by myself in the water meadows on the south side of the town in August, 1894.

***Oxyptila Blackwallii*, Sim.**

A female sent to me from St. Margaret's Bay, near Dover, by the Rev. J. H. Bloom.

***Oxyptila flexa*, Cambr.**

Adults of both sexes, Chester, Dr. A. R. Jackson, 1906.

***Oxyptila scabricula*, Westr., Pl. B., Figs. 57-63.**

Thomisus scabriculus, Westr., Araneæ Suecicæ, p. 441.

An adult male of this very distinct species was sent to me by Mr. H. Donisthorpe in May, 1906, from Woking, where it was found on the edge of a sand pit. This is its first record as a British spider.

Trochosa picta, Hahn.

An adult male of a remarkable melanic variety of this species was sent to me by Mr. George Potts, of Benthall House, near Broseley, Shropshire, in the late summer of 1906. This variety is entirely black, while yet in certain lights the characteristic markings are visible and of a greyish hue. The example now recorded was taken on a waste once the site of very ancient coal and iron workings, and I have little doubt that a permanent race of a similar variety might be found there. This species is liable to vary in colour, and doubtless owing to its surroundings from a long past. Thus in the neighbourhood of Bournemouth, Hants, along the coast it is pretty common, and all the examples I have seen there have been of a more or less uni-colourous pale greyish yellow, with the characteristic markings slightly visible. I have also found a similar variety along the Chesil Beach near Weymouth, while on the more variously-coloured surface of the heath districts of Dorset and Hants the colours of this spider are rich and strongly marked—red, yellow, black, and white.

Tarantula miniata, C. L. Koch.

Adults of both sexes received from Dr. A. R. Jackson, and found at Hastings by Mr. Bennett.

Lycosa paludicola, Clerck.

Lycosa paludicola, Clk.-Cambr., Dor. N. H. and
A. F. Club, xxiii., p. 29.

In the record of this spider (l.c. supra), the author of the species is, by an accidental error, given as C. L. Koch (l.c. p. 29, and p. 17), but is rightly given (Clerck) in the description of the plate, Fig. 12. For an account of the synonyms of this species, cf., "Thorell, Synonyms of European Spiders" p. 304, 1870, where the synonyms of another allied British Species (*Lycosa amentata*, Clk.) are also given.

Euophrys æquipes, Cambr.

An adult male of this minute and rare little jumping spider, found by myself on the gravel walk at Bloxworth Rectory on July 4th, 1906.

Phlegra fasciata, Hahn.

Found by Mr. Bennett at Hastings, and received from Dr. A. R. Jackson in 1906.

Hycia nivoyi, Lucas.

An adult female, St. Margaret's Bay, near Dover, received from the Rev. J. H. Bloom, July, 1906.

ORDER PHALANGIDEA.

Oligolophus Meadii, Cambr.

Adult examples of this very distinct little species were received from Delamere (Dr. A. R. Jackson), and from Mr. Ruskin Butterfield, found at Bexhill, Sussex, in 1906. The only previous records known to me are St. Leonard's-on-Sea and Bloxworth Heath.

Trogulus tricarinatus, Linn.

An immature example from Mr. H. Donisthorpe, found in a nest of *Formica fusca* at Rames Head, Cornwall; and an adult, under a piece of chalk on the warren at Folkestone, found by Mr. H. Wallis Kew, in May, 1906.

Anelasmacephalus Cambridgii, Westwood.

Received from Dr. A. R. Jackson, by whom it was found near Chester, in 1906.

ORDER CHERNETIDEA.

Obisium maritimum, Leach.

Received from the Isle of Man, Dr. A. R. Jackson, by whom it was found there in some abundance.

Chernes minutus, Ellingsen.

Chernes minutus, Ellingsen. Christiania, Vidensk.-Selsk, Forhandlinger, 1896-7.

Two examples of this species were received (Sept. 17th, 1902), from Mr. Wallis Kew, by whom they were found at Elmer's End, Beckenham, in old refuse heaps. I took them at the time to be *C. dubius*, Cambr., but Mr. E. Ellingsen (of Kragerö, Norway), has decided them to be of another species (*C. minutus*, Ellingsen).

This species is new to Britain.

Chernes cyrneus, L. Koch.

Chernes cyrneus, L. Koch-Cambr. (Proc. Dors. N.H. and A.F. Club), Vol. XXVI., p. 56, Pl. B., Fig. 27, 28, 1905. H. Wallis Kew, Trans. Nottingham Naturalists Society for 1905-1906, p. 41, Pl. V.

In the notice of this species (Dors. F. Club, supra cit.), the locality was inadvertently given as "Leicester," whereas it should have been Sherwood Forest, Notts. Mr. Wallis Kew now records (l.c.) other examples from Edwinstowe, Sherwood Forest, under the bark of old oaks.

NOTES AND DESCRIPTIONS OF SOME OF THE FOREGOING
SPIDERS.

Cryphoea recisa, sp. nov. Pl. A., Figs. 1-3.

Cryphoea diversa, Cambr.-Carr, Nottingham Naturalists Society, 1903-1904, p. 17., pub. 1905, and l.c. 1905-1906, p. 48, pub. 1907, c.f. also Proc. Dors. N. H. and A. F. Club, xxvi, p. 44, 1905.

Cephalothorax, legs and palpi yellow, the first rather brightest coloured.

Eyes of posterior row in a very nearly straight transverse line, much longer than the anterior; and the interval between the hind-central pair is nearly double that between each and the hind-lateral next to it. The anterior row is curved, and its eyes contiguous to each other, the convexity of its curve a little directed forwards; the central pair of this row are much smallest of the eight, all the rest rather large and co-equal, of a bright pearl-white hue and somewhat oval form. The general position of the eyes may also be described as in two rather distinctly separated triangular groups of three large eyes each, with a central small group of two smaller eyes between and rather in front of the others in a transverse line. All are encircled by strong black confluent rims, and those of each lateral pair are separated by a distinct interval.

Legs moderate in strength, and not greatly unequal in length, relative length, 1 4 2 3,—5 pairs of long and strong sessile spines beneath the tibiæ, and 3 pairs beneath the metatarsi of the first pair—those beneath the same joint of the second pair being apparently similar; but probably this is liable to some variation in different examples.

Falces, maxillæ, labium, and sternum yellow.

Abdomen, dull whitish yellow, with an indistinct longitudinal central yellowish-brown stripe on the fore-half of the upper side, followed to the spinners by several indistinct oblique lines on each side (or taken together chevrons) of a similar hue. In a series these markings would probably be often obsolete. Spinners normal; genital aperture distinctively characteristic.

This spider is nearly allied to *C. diversa*, Cambr., but is rather larger, and differs in the size and position of the eyes and in some other respects.

When first sent to me from Sherwood Forest by Dr. Carr (University College, Nottingham), I took it to be *C. diversa*, Cambr., but subsequent examination and comparison lead me to believe it to be of a different though allied species.

Hahnia pusilla, C. L. Koch. Pl. A., Figs. 7-11.

Hahnia pusilla, C. L. Koch, Die Arachniden, 1841, Vol. VIII., p. 61, Pl. 270, Fig. 637, 638.

Hahnia pusilla, Dr. A. R. Jackson, Proc. Chester Soc., Part vi., No. 1, May, 1907, p. 2, Pl. 1, Fig. 1-4.

Adult male, length 1-18th of an inch; female, 1-16th.

Cephalothorax and other foreparts of a dull pale yellowish brown hue, the normal indentations slightly indicated by lines of a darker colour.

The *abdomen* is of a whitey brown colour, suffused with a darker hue and marked with indistinct oblique lines on each side of the hinder part of the upper side, forming obscure chevrons.

This small and rather obscure looking species nearly resembles *H. montana*, Blackw., in size, but may be easily distinguished by the darker colour and spotty markings on the abdomen and cephalothorax of the latter, as well as by the form of the posterior extremity of the sternum, which is broad and rounded in *montana*, but rather drawn out into an obtuse point in *pusilla*. The *palpi* also of the males of these two species differ distinctly in their structure. The spinners in *montana* form also a longer and straighter transverse line, and the form of the genital aperture is notably distinct. Examples of both sexes were found at Delamere Forest, Cheshire, by Dr. A. R. Jackson and Mr. W. Falconer in 1906, and were new to the British list. Whether these are rightly identified with *H. pusilla*, C. L. Koch, I do not yet feel quite satisfied. I have never had an opportunity of examining an authentic type of C. L. Koch's species. That they are new to Britain is, however, quite certain.

Robertus insignis, sp. n. Pl. A., Figs. 16-19.

Adult male, length $1\frac{2}{3}$ lines (3 mm.).

This species is nearly allied to *R. lividus*, Bl., which it resembles in general appearance and colour. It is a rather larger spider, however, and the form and structure of the palpal

organs distinguish it without difficulty. In the only example I have seen the legs were much mutilated, so that no details of them could be ascertained.

A single adult male received from Norwich.

Leptyphantes patens, sp. n. Pl. A., Figs. 20-25.

Adult male, length $1\frac{1}{4}$ lines; female the same.

Cephalothorax (male), looked at from above and very nearly vertically, longer than wide, bluff and rounded before, and rounded behind; lateral marginal indentations at caput very shallow. Profile with a slight impression before the central longitudinal indentation; height of the clypeus greater than half that of the facial space; colour pale yellow.

Eyes on black spots, in two transverse rows rather near to each other. The posterior row is longest and curved, but not strongly, the convexity of its curve directed backwards. The intervals between the eyes of this row are very nearly equal and about equal to their width; if anything, that between the central pair is slightly the greatest. The anterior row is straight; those of its central pair are much the smallest, and each is about a diameter's distance from both the lateral and hind-central eyes on its side, and there is about half a diameter's interval between themselves. All the eyes are pearly white, excepting the fore-centrals, which are dark grey.

Legs tolerably long, not very unequal, apparently 4, 1, 2, 3, slender; colour pale yellow; normal spines, slender.

Falces similar in colour to the legs, moderate in length and strength, slightly divergent, with three nearly equal teeth in an oblique row on the upper margin of the fore extremity and a straight longitudinal row of exceedingly minute denticles near their outer side, scarcely discernible without microscopic power.

Palpi rather short, like the legs in colour; cubital and radial joints short, about equal in length. The former has a longish curved tapering spiniform bristle at its fore extremity towards the outer side; the latter is broadish in front with a transverse

marginal row of black bristles on the upper side, and an obtuse prominence behind. The digital joint is large, obtuse in front, where it appears to be of a somewhat bent form. The palpal organs are large and complex; their form was rather obscured owing to their being thrust out of place by the inflation of a membranous lobe connected with them; but the distinctiveness of their structure may be seen from the figures given.

Maxillæ, labium, and sternum dull yellowish.

Abdomen oviform, pale dull whitish yellow.

The female resembles the male in colour and other general characters, and the form of the genital aperture is very distinctive.

Both sexes were received from Mr. H. Donisthorpe, by whom they were found in the nest of the ant, *Lasius fuliginosus*, at Wellington College in the spring of 1906.

***Tmeticus emptus*, Jackson. Pl. A., Figs. 26-31.**

Centromerus emptus, A. R. Jackson. Proc. Chester Soc., Part vi., No. 1, May, 1907, p. 4, Pl. 1, Fig. 16-22.

Adult male, length 1-16th of an inch; adult female, ditto.

Cephalothorax, legs and other foreparts pale yellow, slightly suffused with dull sooty brown. The lateral marginal impressions at the caput are almost or quite obsolete.

Eyes rather small, closely grouped together, on black spots, hinder row curved, convexity of curve directed backwards, and its eyes separated by almost equal intervals of less than a half diameter; front row straight, its central pair very small and the eyes not quite contiguous, but separated by half a diameter from the laterals, which are largest of the eight. Those of each lateral pair are seated on a strongish tubercular prominence; height of the clypeus equal to half that of the facial space.

Legs, moderately long, slender, 4, 1, 2, 3, dull yellowish, the tibiæ of the first and second pairs slightly suffused with dull sooty brown.

Palpi similar in colour to the legs; cubital and radial joints short and of equal length; the former has a tapering black bristle from near its fore extremity on the upper side, digital joint, rather large, with a largish lobe towards its extremity on the outer side. Palpal organs highly developed, complex, with the normal crescent-shaped process (or paracymbium) at their base on the outer side large and of characteristic structure.

Sternum oval, with the hinder extremity drawn out into a longish tapering, obtuse termination between the coxæ of the fourth pair of legs.

Abdomen oval, sooty-brown, hairs short, slender, and scanty.

The *female* resembles the male in general characters and colours. The sternum, however, differs in having its hinder extremity drawn out very slightly and its termination broad and truncated. The genital aperture has a very characteristic process issuing from its fore extremity and directed backwards in close contact with the surface of the abdomen. It is long, slender, slightly tapering, and its point reaches rather beyond the middle of the abdomen, bearing considerable resemblance to that of *Sintula diluta*, Cambr.

Adults of both sexes were found in Delamere Forest by Dr. A. R. Jackson and Mr. W. Falconer.

***Tmeticus nigricauda*, sp. n.** Pl. A., Figs. 32, 33, and
Pl. B., Figs. 34-41.

Adult male, length, $1\frac{1}{4}$ lines. Female, $1\frac{1}{2}$ ditto.

Cephalothorax of normal form; the lateral marginal impressions at caput very slight. Colour yellow-brown, the caput and normal grooves and indentations marked with dark brown. The height of the clypeus equals half that of the facial space. Eyes small in two transverse, slightly-curved rows, the front row shortest. The convexity of the hinder row strongest and directed backwards, that of the front row forwards. The interval between those of the central pair of the hinder row slightly less than that between each and the hind-lateral next to

it. The fore-central pair are the smallest of the eight, and separated from each other by half a diameter's interval. Fore-laterals largest; each lateral pair on a strong tubercle.

Legs rather long, slender, 4, 1, 2, 3. Colour, dull yellow-brown.

Palpi moderate in length, slender, similar in colour to the legs; radial joint about equal in length to the cubital, but stronger and broader at its fore extremity, where there appears to be a pointed apophysis at its fore extremity on the outer side and a more obtuse one on its inner side; from another point of view the outer apophysis appears to be of a somewhat bifid form. The digital joint is rather small, with a prominent lobe on its outer side, and the palpal organs are rather complex.

Falces moderately strong; roundly prominent at their base in front; compressed near their extremity and with a strong prominent sharp tooth towards their extremity in front; their colour is like that of the caput.

Maxillæ, labium, and sternum similar in colour to the caput, the sternum perhaps darkest.

Abdomen bright red with a broadish terminal band of jet black surrounding the spinners, and thinly furnished with short fine hairs.

The *female* resembles the male in colours and general appearance, but is larger and wants the strong tooth on the fore side of the falces. The genital aperture is of characteristic form, but not of large size.

Both sexes have been received from Mr. H. Donisthorpe, by whom they were found in heaps of vegetable refuse at Enfield, Middlesex, and in heaps of old bones at Queensborough, in Kent. It is one of the most distinct and striking species I have seen.

***Tmeticus fortunatus*, Cambr. Pl. B., Figs. 42-44.**

Adult female, length $1\frac{1}{4}$ lines.

This spider agrees very well with the male (described and figured in Proc. Dors. F. Club, XVI., 1895, p. 123, Pl. A,

Fig. 6a), in general characters and colour. Some slight differences may, however, be observed when closely compared with the description (l.c.), though these may be only sexual or owing to some small inaccuracy of observation.

The lateral marginal impressions at the caput seem to be rather stronger, and the fore-central eyes not so large in proportion as in the male.

Legs 4, 1, 2, 3, not very unequal in length. The colulus is distinct, somewhat triangular, acute pointed, of a deep brown colour, and furnished with slightly bristly hairs.

Abdomen pretty thickly clothed with short hairs, and the genital aperture is of a very distinct and characteristic form.

Found at Bloxworth Rectory in company with a male in June, 1906, on the same spot where in several successive years the male has been taken, and I feel but little doubt of its being the female of this species. This sex has not been before described or figured.

I should record here an adult male, hitherto overlooked, taken at Ringstead (between Weymouth and Lulworth) in 1894, and another at Warmwell in 1896.

***Tmeticus serratus*, Cambr. Pl. B., Figs. 45-48.**

Erigone serrata, Cambr., Proc. Zool. Soc. Lond., 1875, p. 325, Pl. 44, Fig. 2.

This spider is very nearly allied to *T. silvaticus*, Blackw., which it closely resembles in general form and colour, but is much smaller, the male measuring in length 1 line and the female $1\frac{1}{4}$. The male may, however, be distinguished, among other differences, by the structure of the palpal organs (see figures of both species, Pl. B.), and by the less strength in *T. serratus* of the minute denticles in the longitudinal row near the outer side in front of each of the falces. In *T. silvaticus*, Bl., the spiniform bristle at the fore extremity on the upper side of the cubital joint of the palpus is also shorter and much more robust. In the male palpi the rather strong

somewhat comb-like process (Pl. B., Fig. 47, *b*), connected with the palpal organs (which I have found in all the numerous males I have examined of *T. silvaticus*) is absent in *T. serratus*. The *paracymbium* also is larger than in the latter, and differs in form, and its serrations on the outer margin are more minute.

The *female* has the genital aperture and process of a somewhat similar general form to that of *T. silvaticus*, but is broader from back to front in proportion to its width, and differs also in other details.

An example of each sex was received in 1902 from Mr. W. Falconer among specimens of *T. silvaticus*, Bl., found near Huddersfield. It has not before been recorded as a British species, but may easily have been overlooked among examples of *T. silvaticus*, Bl.

***Diplocephalus protuberans*, Cambr. Pl. B.,**
Figs. 49-50.

Erigone protuberans, Cambr., Proc. Zool. Soc., Lond., 1875, p. 218, Pl. xxix., Fig. 24.

Diplocephalus protuberans, Cambr.—A. R. Jackson, Proc. Chester Soc., May, 1907, Part vi., No. 1., p. 3., Fig. 10-15.

This species is nearly allied to *D. latifrons*, Cambr., but may easily be distinguished by both the form of the caput and the structure of the palpi and palpal organs. The only British example yet recorded is that mentioned by Dr. A. R. Jackson (l.c. supra) found at Gibside, Durham, by Mr. R. S. Bagnall. The figs. in Pl. B. are taken from those in Proc. Zool. Soc. (l.c. supra).

***Lophocarenum stramineum*, Menge. Pl. B.,**
Figs. 51-53.

Lophocarenum stramineum, Menge—Simon, Araneides de France, tom. 5, p. 678, and D. P. Beresford, Irish Naturalist, XVI., 1907, p.p. 61, 63.

The form of the caput and palpi will easily distinguish this species from the three others of the genus as yet known to be found in the British Islands.

Two males were found on Lambay Island, Ireland, by Mr. Denis E. Pack Beresford, 1906. The figure in the plate of the female epigyne is from a Swiss example in my collection. The species had not been before recorded as British.

***Araeoncus erratus*, sp. n.** Pl. B., Figs. 54-56.

Araeoncus vaporariorum, Cambr.- F. O. P.-Cambr., Ann. and Mag. N. H., Ser. 6, X., p. 395, 1892. Cf. O. P.-Cambridge.*

This spider may be distinguished without difficulty from *Araeoncus* (*Erigone*) *vaporariorum*, Cambr. (Proc. Zool. Soc., Lond., 1875, p. 398, Pl. 27, Fig 8), for which it was mistaken by F. O. P.-Cambridge (l.c. supra), the hind-central eyes in this latter being wide apart and far removed backwards from the straight line of the lateral pairs, whereas in *A. erratus* they form a nearly straight transverse line with the lateral pairs.

An immature male found in a cellar at Cannock, Staffordshire, by F. O. P.-Cambridge in June, 1891.

***Oxyptila scabricula*, Westr.** Pl. B., Figs. 57-63.

Thomisus scabriculus Westr.—Cambr. Araneæ Suecicæ, p. 441. Adult male, length $1\frac{1}{2}$ lines.

This very distinct and curious little spider, may be easily distinguished from all our, as yet known, British species by its very robust form, short legs, and short strong spiny armatures, the spines mostly short, strong, and clavate.

Its general colour is a deep rich black-brown, mottled and marked obscurely with reddish-brown on the cephalothorax, and with a paler hue and some whitish markings on the abdomen;

* "List of British and Irish Spiders," p. 45.

the legs are mottled with blackish, deep brown, reddish, and paler markings, being palest and least marked towards the extremity.

The *palpi* are short and strong; the radial joint has a strong apophysis from its fore-extremity on the outer side. This apophysis appears to be somewhat bent, and is prominent and very obtuse, but its exact shape is most difficult to be seen, and the drawings given can hardly be said to represent it satisfactorily. The palpal organs are highly developed and rather complex, consisting of several strong curved and sharp-pointed processes, and surrounded by a long strong tapering pointed spine. This spine runs round sinuously on their inner side, and ends in a bold prominent coil at their fore-extremity.

The four eyes of the central quadrangle appear to form almost an exact square, contrary to the ordinary diagnosis for this genus, which is that of a quadrangle whose width is less than its length.

I have not been able to compare the above with any typical example of Westring's spider, but M. Simon, to whom I sent drawings of it, believes it to be of the same species.

It was found in a sandpit at Woking, and kindly sent to me by Mr. H. Donisthorpe in 1906. Whatever it may ultimately prove to be, it is certainly new to Great Britain.

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DESCRIPTION OF PLATE.

PLATE A.

- Fig. 1. *Cryphoea recisa*, sp. n. Female. Eyes from in front.
 „ 2. „ „ Genital aperture.
 „ 3. „ „ Spinners.
 „ 4. *Hahnia nava*, Bl. Palpus of male, under side.
 „ 5. „ „ Eyes from above and behind.
 „ 6. „ „ Genital aperture. Female.
 „ 7. „ *pusilla*, C. L. Koch. Eyes of male from above and behind.
 „ 8. „ „ Left palpus, male, from under side.
 „ 9. „ „ Spinners.
 „ 10. „ „ Genital aperture. Female.
 „ 11. „ „ Posterior extremity of sternum.
 „ 12. „ „ Do. of *Hahnia montana*, Bl.
 „ 13. *Laseola jucunda*, Cambr. Profile.
 „ 14. „ „ Eyes from above and behind.
 „ 15. „ „ Genital aperture.
 „ 16. *Robertus insignis*, sp. n. Male. Caput and eyes from above and behind.
 „ 17. „ „ Profile of cephalothorax.
 „ 18. „ „ Right palpus from outer side.
 „ 19. „ „ Do. outer side and behind.
 „ 20. *Leptyphantus patens*, sp. n. Female. Genital aperture.
 „ 21. „ „ Do. in profile.
 „ 22. „ „ Profile of cephalothorax.
 „ 23. „ „ Eyes from in front.
 „ 24. „ „ Right palpus, male, from in front and behind.
 „ 25. „ „ Left do. from outside and above.
 „ 26. *Tmeticus emptus*, Jackson. Male. Eyes from above and behind.
 „ 27. „ „ Profile of cephalothorax.
 „ 28. „ „ Posterior extremity of sternum.
 „ 29. „ „ Right palpus from outer side.
 „ 30. „ „ Female. Genital aperture and process.
 „ 31. „ „ Posterior extremity of sternum.
 „ 32. „ *nigricauda*, sp. n. Male. One of the falces from in front.
 „ 33. „ „ Left palpus, under side.



DESCRIPTION OF PLATE.

PLATE B.

Fig. 34.	<i>Tmeticus nigricauda</i> , sp. n. (continued).	Male.	Right palpus in front.
„ 35.	„ „		Left palpus, rather behind.
„ 36.	„ „		Do. from above and behind.
„ 37.	„ „		Caput in profile.
„ 38.	„ „		Eyes from above and behind.
„ 39.	„ „		Posterior extremity of abdomen.
„ 40.	„ „		Female. Genital aperture.
„ 41.	„ „		Do. in profile.
„ 42.	„ <i>fortunatus</i> , Cambr.	Female.	Eyes from above and behind.
„ 43.	„ „		Genital aperture.
„ 44.	„ „		Do. in profile.
„ 45.	„ <i>serratus</i> , Cambr.	Male.	Left palpus, outer side, and rather looking upwards. <i>a</i> , <i>paracymbium</i> , <i>c</i> , cubital joint.
„ 46.	„ „		<i>a</i> , <i>paracymbium</i> from more in front.
„ 47.	„ „		<i>a</i> , <i>paracymbium</i> of <i>T. silvaticus</i> , Bl., <i>b</i> , comb-like process, <i>c</i> , cubital joint
„ 48.	„ „		Genital aperture of <i>T. serratus</i> .
„ *49.	<i>Diplocephalus protuberans</i> , Cambr.	Male.	Profile.
„ 50.	„ „		Palpus.
„ 51.	<i>Lophocarenum stramineum</i> , Menge.	Male.	Side view of caput.
„ 52.	„ „		Right palpus from outer side, in front.
„ 53.	„ „		Genital aperture. 53 <i>a</i> . Natural length of male and female.
„ 54.	<i>Araconcus erratus</i> , sp. n., Sim.		Cephalothorax and eyes in profile.
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„ 56.			Eyes of <i>A. vaporariorum</i> , Cambr., from above and behind.
„ 57.	<i>Oxyptila scabricula</i> , Westring.	Male.	
„ 58.	„ „		Right palpus from inner side.
„ 59.	„ „		Eyes from in front.
„ 60.	„ „		Right palpus from in front and outer side.
„ 61.	„ „		Do. from behind and outer side.
„ 62.	„ „		Do. outer side.
„ 63.	„ „		Do. above.

* Figs. 49 and 50 are copied from figures of type given in Proc. Zool. Soc., Lond., 1875, Pl. 29.





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