

copper by the foregoing results lost in seven days' immersion 46.2 and 45 per cent.

In the first instance I was inclined to attribute the indestructibility of the unrefined copper in the acid partly to the effects of the charcoal in the cementation, seeing that the effect produced by that operation was much greater upon unrefined than upon pure copper. Whatever advantages may belong to the proper use of charcoal in the reduction and cementation of copper, (and I consider them not unimportant,) the addition of a small portion of tin will be sufficient to account for the superior resistance to waste which this alloy presents in the muriatic acid, over that of the common refined copper of this country. This incapacity to rapid oxidation which is presented by the alloy of tin with copper, suggests many useful hints to the artist and the manufacturer, of which advantage has already been taken in forming ship-sheathing and other articles.

DAVID MUSHET.

LXXII. *Insectorum nonnullorum exoticorum (ex Ordine Dipterorum) Descriptiones. Auctore J. O. WESTWOOD, F.L.S. &c.*

[Continued from p. 281.]

PHILOPOTA, Wied. *Maculicollis*, Westw. Nigra; thorace anticè maculis 2 minutissimis, alterisque 2 parvis ad basin alarum fulvis; abdominis marginibus tenuitè flavo notatis, segmentis terminalibus, sericie subaureâ tectis; antennis nigris; facie albidâ; femoribus nigris, apice rufis, pedum geniculis pallidis; alis infumatis.—Long. corp. lin. 4½. Exp. alar. lin. 11½.

Habitat in Brasiliâ. "Capta D. Swainson." In mus. nostr.

LEPIDOPHORA, Westw. (Fam. *Bombyliidæ*.)

Antennæ capite triplò longiores, squamulis obtectæ, articulo 1mo? brevi, 2ndo longo gracili, 3tio breviori latiori, stylo apicali. Proboscis antennarum dimidiò brevior. Thorax valdè gibbosus. Abdomen elongatum, parallelum, caudâ squamulosâ ornatum. Alæ farinosæ, nervis ut in *Cyleniâ* dispositis. Pedes longi, graciles.

Obs. Cel. Kirby et Spence hoc genus commemorant libro "Introd. to Ent." vol. iii. p. 646, pl. 12, f. 23, ubi Culicem cum Anthrace, &c., conjungere credunt.

Sp. 1. *Lep. ægeriiformis*, Westw. MSS. *Ploas ægeriiformis*, G. R. Gray, in Griff. An. K. pl. 128.

Niger; thoracis lateribus flavo pubescentibus; abdomine maculis 6 lateralibus flavis; alis infuscatis.—Long. corp. lin. 5½—6½. Exp. alar. lin. 11—14.

Habitat in Georgiâ Americæ.—In Muss. Brit. et nostr.

Obs. *Toxophora lepidocera* Wied. congenerica videtur.

NEMESTRINA, Latr. *Rhynchocephalus*, Fisch. *Fallenia*, Meig. t. 2.

Subg. 1. *Fallenia*, Macq. Palpi elongati, attenuati; antennarum stylo

cylindrico; alarum cellulâ 3tiâ submarginali minutâ, clausâ.—*Cytherea fasciata*, Fab.

Subg. 2. *Nemestrina* propriè sic dicta. Palpi minuti; articulis rotundatis; antennarum stylo setiformi 3-articulato; alarum regione apicali valdè transversè reticulatâ; oculis lævibus.—*N. reticulata*, Latr.; *longirostris*, Wied.

Subg. 3. *Trichophthalma*, West. Palpi magnitudine intermedii; articulis plùs minùsve ovalibus; antennis ut in subg. 2; alarum regione apicali longitudinalitèr nervosâ, nervis ut in *Fall. caucasicâ* (Meig. vol. 2. t. 16, f. 14.) dispositis, nervo ferè recto, e medio nervi subcostalis, apicem versus marginis postici obliquè currenti; nervo 2ndo apicali furcato; oculis pubescentibus.

Hic pertinere videntur *Rhync. Tauscheri* Fisch., Meig. v. 6. pl. 66. f. 67. et *Rhyn. caucasica* Fisch., Meig. loc. cit.; etiam

Trich. bivittata, Westw. Thorace cinereo; capite magno; oculis fulvescenti-pubescentibus; proboscide capite longiori; abdomine nigro, vittis duabus longitudinalibus latis albis; antennis pedibusque rufescentibus; alis hyalinis; nervis costalibus et basalibus fusco-rufis, reliquis nigris.—Long. corp. (probosc. excl.) lin. 7. Exp. alar. lin. 16.

Habitat in Novâ Hollandiâ.—In mus. nostr.—Communicavit Dom. Shuckard.

Trich. costalis, Westw. Thorace fusco; capitis facie albâ; oculis piceo-pubescentibus; abdomine rufescenti-fusco; basin et apicem versus corporeque toto subtùs pubescentiâ albo-cinerascenti indutis; pedibus rufescentibus; antennarum articulis terminalibus nigris; alis elongatis; costâ latè fuscanti; proboscide nigro; capite paullò longiori.—Long. corp. (probosc. excl.) lin. 7. Exp. alar. lin. 17.

Habitat in Novâ Hollandiâ.—In mus. nostr.—Communicavit Dom. Shuckard.

Trich. obscura, Westw. Obscurè cinerea; pedibus rufescentibus; facie albâ; proboscide capite ferè duplò longiori; alis ad costam tenuitèr fuscantibus; ocello antico aliis remoto.—Long. corp. (probosc. excl.) lin. 5½. Exp. alar. lin. 14.

Habitat in Africâ?—In mus. D. Hope.

Trich. subaurata, Westw. Fusca; pubescentiâ subauratâ tectâ; thorace lateribus et in medio longitudinalitèr pallidiùs bivittato; abdomine magis fulvescenti, vittâ obscuriori centrali longitudinali; pedibus et antennis rufescentibus, harum setâ nigrâ, alis brevioribus; costâ latè fuscanti; proboscide capite plùs quàm duplò longiore.—Long. corp. (probosc. excl.) lin. 5¼. Exp. alar. lin. 13½.

Habitat in Americâ meridionali (Valparaiso). In mus. D. Hope.

Obs. Sectio 3tia suprâ descripta affinitatem generis *Nemestrinæ* cum *Hermoneurâ* facilè demonstrat, inde in ordine naturali genus *Nemestrina* locum intermedium tenet inter *Cyrtum*, *Lasiam*, &c. familiæ *Vesiculosarum* et *Hermoneuram* familiæ *Anthracidarum*.

Obs. Genus *Midas*, neuratione alarum similiter insolitâ, gaudens ramulo laterali systematis, generibus suprâ prædictis conjungi videtur. An genus osculans ad *Asilidas*, &c. adducens?

APIOCERA, Westw. Genus quoad habitum *Midasibus*, *Corsomyxis* et *Nemestrinis* approximare videtur. Caput transversum. Antennæ capite breviores; articulo 1mo crasso, 2ndo parvo, his articulis cum setis rigidis armatis; 3tio parvo pyriformi; setâ minutâ terminali. Proboscis exserta, capitis longitudine. Palpi exserti, spatuliformes. Abdomen thorace ferè

duplò longius, obconicum. Femora postica haud incrassata. Tarsi bipulvillati. Alarum nervi ferè ut in *Midase* dispositi; nervo 3tio longitudinali, ante apicem furcato, recto; nervo 4to longitudinali supplementali, apice cellulæ 1mæ discoidali exeunti, inde cellulæ 4 posteriores marginales efformantur.

Sp. 1. *Ap. asilica*, Westw. Nigra; vertice, thoracis lateribus piceis; palpis albidis; alarum nervis nigris.—Long. corp. lin. $9\frac{1}{2}$. Expans. alar. lin. 17.

Habitat in Novâ Hollandiâ.—In mus. nostr.

Sp. 2. *Ap. fuscicollis*, Westw. Obscurè fusca; thorace cinereo subvittato; palpis albidis; alarum nervis internis pallidis; corpore subtùs albido villosa. An varietas præcedentis?—Exp. alar. lin. 17.

Habitat in Novâ Hollandiâ?—In mus. D. Hope.

PANGONIA, Latr., *Macroglossa*, Westw. Pallidè fusco-pubescens; facie albâ (ocellis 0), thorace vittis duabus longitudinalibus in medio, lateribus, et maculâ utrinquè basin versus alarum albis; abdomine piceo, segmento 1mo fulvo-marginato, 2ndo et 4to albo-marginato, 3tio rufo-marginato, reliquis fusco-marginatis; alis basi et ad costam latè infumatis; pedibus testaceis.—Long. corp. lin. $8\frac{3}{4}$; long. probosc. lin. 15. Exp. alar. lin. 16.

Habitat in Georgiâ Americæ.—In mus. nostr.

PANGONIA *maculiventris*, Westw. Nigra; thorace haud vittato; abdomine rufescenti-fusco, serie dorsali macularum rotundarum nigrarum; alarum nervis (præsertim transversis) fusco tinctis; pedibus fuscis; corpore subtùs pallidiùs pubescenti; ocellis 3.—Long. corp. lin. $6\frac{1}{2}$. (proboscide mutilâ). Exp. alar. lin. 14.

Habitat in Novâ Hollandiâ. In mus. nostr.

LXXIII. *Proceedings of Learned Societies.*

ASTRONOMICAL SOCIETY.

1835. **T**HE following communications were made:
Jan. 9th.—I. Mr. Sheepshanks exhibited a small clock, on Fraunhofer's principle, for giving motion to an equatorial, and explained the construction and use of a moveable piece to be applied to the eye-end of the telescope, for the purpose of micrometrical measurements.

Mr. Sheepshanks also exhibited a telescope fitted up as an equal-altitude instrument, similar to that drawn in Plate XIII. of Dr. Pearson's "Introduction to Practical Astronomy," except that it has straight radii at the base instead of a claw stand. The purport of his remarks was to point out the various objects to which such an instrument might be applied in the hands of a traveller or amateur able and willing to *calculate* his observations. Such an instrument is evidently a tolerable theodolite and level, as well as a very firmly mounted telescope for common purposes, occultations, eclipses, &c.; and if the cross axis be made with care, it would suffice as a transit for the moon and moon-culminating stars in ordinary cases. But it is chiefly valuable as an *equal altitude* instrument, which it is made by an excellent level attached to a small quadrant on one side of the telescope. Further particulars of Mr. Sheepshank's communications on both subjects are given in the Monthly Notices of the Society.



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The London and Edinburgh philosophical magazine and journal of science.

London :Richard and John E. Taylor,1832-1840.

<http://www.biodiversitylibrary.org/bibliography/58332>

3rd ser. : v.6 (1835 : Jan.-June):

<http://www.biodiversitylibrary.org/item/20163>

Page(s): Page 447, Page 448, Page 449

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