there is more difficulty in starting the peeling process, but on the other hand when once a satisfactory start is made it peels off more readily.

Large sections have been prepared (about 20 sq. decimetres in area) with scarcely a detectable flaw and with the cellular details of the fossil-plants perfectly represented. Gelatine peels may be cleared in zylol and mounted in Canada balsam solutions.

JOHN WALTON.

Botanical Department,
The University, Manchester, Feb. 6.

Matthew Island.

ON May 7, 1928, when on the s.s. *Suva*, I passed close to Matthew Island, in the South Pacific, but was unable to land. It is about 200 miles from the nearest of the Loyalty Islands, and about 170 from the southernmost of the New Hebrides. It is known to be inhabited by numerous sea-birds, and it is possible to see green vegetation on the sides of the central mass. I could not see any coconut palms. From the heavy surf dashing against the shore, it appeared that landing would be difficult, but I was told that the island was used for target practice by British gunners during the War. Owing to the position of the island, and the many interesting problems connected with the fauna and flora of the New Caledonia and New Hebrides groups, any endemic terrestrial animals or plants found upon it would be of extraordinary interest. It may be that none will be found, but I think the chances for discovery are good enough to justify a careful search, especially in view of the richness of Norfolk Island and Lord Howe Island. Perhaps there are some records, but I have not heard of any, and believe that no careful investigation has ever been made.

Matthew Island was discovered in 1788 by Capt. Gilbert on the *Charlotte*. It is said to be 465 feet high, of volcanic formation, composed principally of basaltic rock. The outline is roughly triangular, each side about a third of a mile long. It may perhaps be regarded as the southernmost point of the New Hebridean chain, although the nearest relatively shallow water is that of the New Caledonian group.

The Middleton Reef, north of Lord Howe Island, has a fair-sized rock above the sea, but this is undoubtedly devoid of terrestrial life other than sea-birds.

T. D. A. COCKERELL.

University of Colorado,
Boulder, Colorado, Feb. 12.

The Moment of the Bromine Nucleus.

THE following interpretation has been given by Kiess and de Bruin (U.S. Bureau of Standards *Journal*, in print) of the strong bromine arc lines:

Int.	λ	Combination.
15	6631·64	$5s\ {}^4P_{5/2} - 5p\ {}^2D_{5/2}$
12	6559·81	$5s\ {}^4P_{5/2} - 5p\ {}^4S_{3/2}$
20	6350·74	$5s\ {}^4P_{5/2} - 5p\ {}^2P_{3/2}$
12	6148·62	$5s\ {}^4P_{5/2} - 5p\ {}^2D_{3/2}$

These lines have thus the same end-level $^4P_{5/2}$ originating in the coupling of a $5s$-electron.

The hyper-fine structure of bromine lines has been investigated by Kimura (*Mem. Coll. Sci., Kyoto*, **4**, p. 133; 1920) and by Hori (*Mem. Coll. Sci., Kyoto*, **9**, p. 312; 1926). The above-mentioned lines are quadruplets consisting of a series of components of decreasing spacing and intensities. The distances between the components are in all cases practically the same: $\Delta\nu = 0{\cdot}19$, $0{\cdot}13$, and $0{\cdot}08$.

In combining the value $i = 3/2$ with the value $j = 5/2$, one finds the right number of hyperfine structure levels, namely, four. Further, one should expect on the basis of the interval rule for the ratio between the hyperfine structure levels 4 : 3 : 2, which is in good agreement with the observed values 4 : 2·7 : 1·7. It seems, therefore, probable that the moment of the bromine nucleus is $i = 3/2$.

The Zeeman effect of these hyperfine structures will be investigated.

T. L. DE BRUIN.

Laboratory 'Physica' of the University
of Amsterdam, Feb. 6.

Zoological Nomenclature: Acarine or Insect?

IN answer to Dr. C. W. Stiles's letter in NATURE of Feb. 9, 1929, p. 207, in which he states "that application for suspension of the rules has been made in the case of *Nycteribia* Latreille, 1796, monotype *Pediculus vespertilionis* Linn., 1758. The Commission is requested to set aside the monotype designated in 1796 and to validate *Nycteribia pedicularia* 1805 as type of *Nycteribia*", I desire to point out that as Latreille's description is based on an insect, and as the so-called monotype is an acarid, it follows that the name Nycteribia cannot supplant *Spinturnix* for the genus in which *Pediculus* [Scopoli used *Acarus*.—Ed. NATURE] *vespertilionis* Scopoli 1763 is now placed.

1. *Pediculus vespertilionis* Linné 1758 is a *Nycteribia* from his diagnosis, therefore no emendation is necessary.

2. *N. pedicularia* Latreille 1805 is the same species.

3. *N. vespertilionis* cannot be an acarid as suggested by the pretext for alteration.

ANTHONY MUSGRAVE
(Entomologist).

The Australian Museum,
Sydney, Dec. 13, 1929.

THE foregoing letter from Dr. Musgrave, one of the world's best-known authors on the *Pupipara* (in which *Nycteribia* is classified), presents one angle of the triangular problem upon which the International Commission on Zoological Nomenclature has been requested to render an opinion: (1) From 1763 to 1796, *Pediculus vespertilionis* Linn., 1758, was interpreted as an acarine on basis of Frisch's (1728) figure cited by Linnæus in 1758. (2) From 1796 to 1900 it was interpreted as an insect on basis of Latreille's description. From 1900 to date it has been interpreted by some authors as an acarine, by others as an insect. (3) If Linné's diagnosis be compared with the description by Frisch, the probability is seen to be present that Linné's *P. vespertilionis* was a composite species consisting of an acarine plus an insect.

In the communication printed in NATURE of Feb. 9, 1929, p. 207, the Commission complied with the routine prescribed by the International Zoological Congress, that is when (as in this case) it may become necessary 'to suspend the rules' and to act under its 'Plenary Power', in order to settle certain cases of controversial nature, the Commission is required to give public notice of at least one year of its possible action, to enable every side to the controversy to submit its point of view.

We are forwarding Dr. Musgrave's argument to Mr. Frederick Chapman, the Australian member of the International Commission, and to the Secretary of the Commission.—EDITOR.