all zoological generic names should be regarded as masculine. I enclose herewith a copy of his article on the subject: perhaps you could quote some portions of it in SCIENCE in order to remind the zoological world of an eminently reasonable proposal.

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My suggestion is that a technical specific name in Zoology should be released from the obligation of agreeing with the supposed gender of the generic name to which it is attached.

Simplicity would be attained by acceptance of the convention that in zoology a generic name, whatever its termination, is to be regarded as of the masculine gender.

That some scholarly ear might occasionally be offended, is a minor disadvantage compared with the general utility of the convention. A famous historical character was hailed as "our king Maria Theresa," without any influence on the actual sex of that distinguished person. Similarly many men have been named Maria without in consequence becoming women or in any degree effeminate. The termination of a generic name is a very indifferent reason for determining a zoological species as either masculine, feminine, or neuter, seeing that the species itself usually includes two of the genders, and sometimes all three. Very commonly all the normal individuals of a species are either of the male or female sex. Yet, under the existing rule, the species must sometimes have a neuter name, as though it referred to something inorganic or of undiscriminated sex. Such considerations, however, are of subordinate importance compared with the troublesome character of the present arrangement. As every one is aware, it repeatedly happens that by accessions to knowledge, genera become unwieldy and have to be subdivided. The new names, it may be, do not agree in gender with the old, and then the transferred species must all have their terminations altered. But, apart from this consequential trouble, naturalists for ages past have found the determination of generic genders a stumbling-block. How much more is this likely to be the case in the future, with the continuous decline of classical studies! Without actual examples, few would credit the difficulties encountered and the errors committed by naturalists in their endeavors to comply with the existing rule or practise.—T. R. R. Stebbing in *Knowledge* (1910).

HAY FEVER AND THE NATIONAL FLOWER

TO THE EDITOR OF SCIENCE: The attention of the American Hayfever Prevention Association has been called to the article on "Hay Fever and the National Flower" in a recent issue of your journal.

The research department of this association, which was established in 1915, has made a thorough investigation of the causes of hay fever, being assisted in this work by specialists and botanists in practically every state of the union. The pollens of all the most common plants and trees have been tested and their relation to hay fever established.

Generally speaking, the principal causes of fall hay fever in the northern, eastern and southern states[1] are the pollens of the ragweeds (Ambrosiaceæ), these being replaced in the Pacific and Rocky Mountain States[2] by the wormwoods (artemisias) The chief causes of spring hay fever are the pollens of the grasses in all sections. About five per cent. of hay fever cases are due to other pollens. The golden rod, however, is not included in these, having proven a clear "alibi."

For those not already familiar with the subject, the following statement is made:

THE GOLDEN ROD IS NOT RESPONSIBLE FOR HAY FEVER

1. It does not conform to the description of hay fever plants, which is as follows:[3] (1) They are wind-pollinated, (2) very numerous, (3) the flowers are inconspicuous, without bright color or scent, and the pollen is formed in great quantities. The flowers of the golden rod are insect-pollinated, have bright colors and scent, and the pollen is not formed in large quantities.

[1] "Hayfever: Its Cause and Prevention," W. Scheppegrell, M.D., *Journal of the American Medical Association*, March 4, 1916.

[2] "Hayfever: Its Cause and Prevention in the Rocky Mountain and Pacific States," W. Scheppegrell, M.D., United States Public Health Reports, July 20, 1917.

[3] "Hayfever and Its Prevention," W. Scheppegrell, M.D., United States Public Health Reports, July 21, 1916.

2. The golden rod continues to bloom for several weeks after the hay fever season is over.[4] In western North Carolina, for instance, the hay fever season concludes about October 1, but the Canadian golden rod (*Solidago canadensis*) brightens the autumn landscape until November. In our hay fever clinic at the Charity Hospital of New Orleans, the fall hay fever season concludes about October 26, but the golden rod continues to bloom until December.

3. Our research department exposes its atmospheric-pollen-plates in various parts of the United States, and in this way, the atmospheric-pollens are caught and examined. The pollens of the golden rod are never found on these plates, proving that this pollen is not atmospheric. Unless the pollen is in the air, as in the cases of the ragweeds, grasses and other wind-pollinated plants, it can not cause hay fever unless the nostrils are applied directly to the flower, or are used in large quantities for room decorations, in which case the pollen may fall within the limited space.

The pollen of the golden rod may cause a reaction when applied directly to the nostrils, or when used in large quantities for room decorations. As far as being a cause of hay fever, however, it is absolutely negligible. It is one of our most beautiful flowers, and well merits its selection as the national flower of the United States.

W. SCHEPPEGRELL

AMERICAN HAYFEVER PREVENTION ASSOCIATION; CHIEF OF HAYFEVER CLINIC, CHARITY HOSPITAL; EX-PRESIDENT AMERICAN ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

SCIENTIFIC BOOKS

Manual of Meteorology, Part IV. *The Relation of the Wind to the Barometric Pressure.* By SIR NAPIER SHAW, Cambridge, University Press. 1919.

The British Meteorological Office during the past four years has been called upon to answer a good many questions put to them by the Army, Navy and Air Services. The requests for detailed information regarding wind, weather and the structure of the atmosphere were numerous and urgent. For in both offensive and defensive operations the military authorities suddenly realized how all important a knowledge of aerography was. In attempting to give definite data, Sir Napier Shaw, as Scientific Advisor to H. M. Government and chairman of the Meteorological Committee, says that he found as a guiding principle of great practical utility, the relation of the wind to the distribution of pressure. The underlying assumption is that the flow of air in the free atmosphere follows very closely the laws of motion under balanced forces, depending upon the *spin* of the earth and the *spin* in a small circle on the earth.

There are eleven chapters in the book. The opening chapters give details of the determination of the pressure gradient and the wind. Land and sea relations of surface wind to the gradient, turbulence in relation to gustiness and cloud sheets, eddy clouds, the dominance of the stratosphere, coastal refraction of isobars and the dynamical properties of revolving fluid in the atmosphere, are treated in some detail in successive chapters.

Space permits of but one quotation from the book and that is almost the last paragraph; but here the author drives another nail in the coffin of the convectional theory of the cause of cyclones.

> It has long been supposed that the variations of temperature at the surface are themselves the cause of the original circulation of the cyclone, but it is much more easy to explain convection along the core as the effect of an existing circulation above, than *vice versa,* and there are so many examples of convection attended even by copious rainfall which produce no visible circulation that it is difficult to regard convection from the surface as a sufficient cause of our numerous depressions.

Sir Napier deals at some length with the relation between the surface wind and the geostrophic wind at sea-level. This is pecul-

[4] "Susceptibility to Hayfever, and Its Relation to Heredity, Age, and Seasons," W. Scheppegrell, M.D., United States Public Health Reports, July 19, 1918.