speaker stands in the center of one side and not at the end, unless he be a practiced speaker he usually will address the majority of his remarks, be they written or impromptu, towards one or the other end of the hall, depending upon whether he be right or left handed. In illustration, I recently listened in a hall of this description to two cultivated Englishmen. One was an orator accustomed to speak in the House of Parliament, where the audience surrounds the speaker on all sides. He turned equally to the right and left of his audience, but the other, a general, more accustomed to the battlefields than the rostrum, gesticulated with his right hand so forcefully that he pulled himself around to face his audience upon his right, to the almost complete ignoring of those seated upon his left. Meanwhile, in his embarrassment, with his left hand he clung to the lapel of his coat, which further precluded his turning towards that side!

In a medical lecture hall into which an adjoining room often is thrown open to accommodate an overflow audience, there is a narrow but tall reader's desk at the center of one side. It is amusing to note that the right-handed speaker often leans upon this desk with his right arm, thereby turning himself to address his audience upon his left, but should be remove his right arm to gesticulate (which medical speakers from the nature of their subject rarely have occasion to do), he pulls himself around to face the opposite end of the wide but narrow hall. The left-handed speaker does the reverse. As the majority of speakers are right handed, I have found it an advantage for hearing to sit in the audience upon their right side, unless there be a tall reading desk, when it is safer to sit upon their left!

Related to this topic is the question of right and left eyedness, which was discussed in SCIENCE some time ago. Apart from any question of possible difference in acuteness of vision is the fact that many persons can not close the two eyelids with equal facility, which sometimes may account for poor marksmanship. In sighting a shotgun, for instance, from the right shoulder, if one instinctively closes the right eyelid much more readily than the left, in order to use the left eye one must bring the head much further over toward the stock of the gun, and failure to do this quickly and completely results in poor aim, particularly in rapid firing, as in taking birds on the wing.

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THE BIRD COLLECTOR

FROM the article of Joseph Grinnell in your December 15th issue, one would infer, first, that the toll taken by collecting ornithologists is negligible; and second, that it makes no difference anyway since the factor of safety is so large. However true this may be with respect to the dominant species, it certainly is not so when it comes to forms that are rare, either absolutely or locally. When a species once gets on the down grade, the hand of every man with a gun, especially if he be an ornithologist, is against it. There is no deadlier adventure for a rare bird or one which has ventured out of its ordinary range than to meet a bird lover of the collecting type. One might think that the ornithologist-conscience would prevent abuses in this line, but my experience indicates that in this variety of the human species that mental organ is purely vestigial; while among commercial collectors, for whose existence the ornithologist is chiefly responsible, it is non-existent. For example, a few years ago a pair of avocets (formerly abundant, but now very scarce in western Nebraska) bred in a marsh near Grand Island. The following year, this colony was increased. The news of this brave attempt to regain some of its lost territory reached the ears of a collector in Lincoln, who promptly went out and exterminated the colony.

The last specimen of the British sea-eagle passed away not long ago. Paid persecution brought its numbers to the danger point; but after the reward for killing it was withdrawn, it might easily have maintained itself but for the selfishness of collectors, who shot every available specimen for "preservation." To this the scientific bird-man will doubtless reply: "Tush! When a species is dying out or trying to extend its range, it will do so regardless of collectors." But to the non-partisan mind such protests naturally raise a question as to the protestor's sincerity or accuracy. The indictment of Douglas Dewar anent the hoopoe will strike many a responsive chord. In his

Bombay Ducks, p. 146, he says, "The hoopoe frequently visits England and would breed there if it were allowed to do so; but the moment the beautiful bird sets foot on our shore it is shot by some collector, who then proceeds to boast about his exploit. The consequence is that the hoopoe is a very rare bird in England, and is likely to remain so until severe measures are enacted against that enemy of nature, the collector of birds."

What is to be done? As one who believes that for the greatest good to the greatest number, it is more important to save the rare birds than have them run the risk of extermination in the interests of science, I believe the killing of such birds should be absolutely prohibited. Their appearance can be taught by carefully prepared plates or by skins protected by double glass-plates. If any one believes that it is absolutely essential to human welfare or to that of his guild that they be "collected," let him show the faith that is in him by going after them and standing up for fine and imprisonment like a man. For the species that are beginning to be rare, or better yet, for all harmless birds the laws should permit them to be shot only by accredited representatives of scientific institutions. Furthermore, all teachers and others engaged in promoting the interests of young people in wild life should discourage the collecting impulse as unsocial in its ultimate results. To test the logic of this position merely imagine what the result of the opposite course would be. Suppose all children throughout the land were urged to provide themselves with guns and to start collections of birds and eggs. What would this do to the factor of safety for the rarer birds?

H. GIFFORD

THE ACTION OF SODIUM HYDRATE UPON THE COMPOSITION AND DIGESTIBILITY OF GRAIN HULLS

IN an earlier publication of this journal,[1] a brief account was given of studies made at this station on the effect of dilute solutions of sodium hydrate on the composition and digestibility of grain hulls and other fibrous material.

Since this first report was made additional work has been done with barley hulls, cotton-seed hulls and flax shives. It has been found that the soda solution had a pronounced influence in improving the digestibility of the barley hulls but that it was substantially without effect upon the digestibility of the cotton-seed hulls or flax shives. A special study is being made of its action upon the digestibility of the pentosans, fiber and lignin. It is intended to study the effects of other methods of treatment including the action of other chemicals upon grain hulls and similar materials.

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[1] SCIENCE. Vol. LV, No. 1414, p. 131, February 3, 1922.

STENOMORPH, A NEW TERM IN TAXONOMY

IN the study of shipworms I have found that larval forms of various species seem to show no selective powers as far as the size of the wood to which they have attached themselves is concerned. It therefore happens that we find the same species growing in timbers sufficiently large to enable it to attain full size, which in different species varies from six inches to three and a half feet in length, and from a few millimeters to almost an inch in diameter; or the larval forms of the same species may attach themselves to a piece of lath or a twig and completely honeycomb this, just as they do the larger piece of timber, reaching sexual maturity in this state. Forms under such conditions are dwarfed and while they have the structural features of the larger species, these are all reduced correspondingly in size. To such forms distinct names have been given by some authors who did not understand the true inwardness of the situation. For such diminutive forms produced by their cramped habitat I wish now to propose the term *stenomorph*.

Specimens coming under this designation will probably be found in all species of shipworms as well as other boring and nestling mollusks and probably other groups of organisms.

It is more than likely that specimens grown in the small 2 x 4" test blocks, placed in various waters of our country by the Committee on Marine Piling Investigations of the National Research Council, will produce stenomorphs of the various species.

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