Vol. 44; see pp. 6–7) in which Heape introduced the terminology under discussion, he will find that the specific point has already been settled. Heape wished to introduce well-defined terms which would differentiate the phases of the reproductive cycle in mammals. Before giving his own choice, he discusses several alternatives, amongst them being the neuter word "œstrum." He rejects this because it already has a meaning in general use which is considerably wider than that which he desires to convey. He therefore takes the Latin word "oestrus" and gives it a clear definition, thereby introducing it as a scientific term. It seems clear, therefore, that there is very good reason for using the scientific term introduced by Heape and not the variant from general usage with a more indefinite meaning.

I feel that there is another reason why we should attempt to respect Heape's terminology, for it is said that to define a problem clearly is half the battle. Heape certainly did this for us and has thus paved the way for recent work on sex hormones which is producing such excellent results, especially in this country.

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BOUGHS, BUTTS AND BEAVER DAMS

IN SCIENCE for December 18, 1931, Mr. Charles Macnamara writes of certain beaver dams he had observed in which "at least 90 per cent." of the boughs had been placed with butt ends *downstream,* instead of upstream, as generally stated in published accounts of the beaver.

There is no question as to the accuracy of Macnamara's observations. On the contrary, as one who long has been an interested observer of the beaver and its works I am quite in agreement with him and feel that many who have written about the beaver, myself included, have, perhaps, when making generalized statements, rather unduly emphasized the position of the boughs in beaver dams. That the butt-end-upstream feature should have been singled out for special mention is probably of psychological interest only, but aside from the question of their accuracy as generalizations such statements tend to create the erroneous impression that this particular position of the boughs is a matter of design on the part of the beaver. Whatever the position of the boughs in a dam the explanation can usually be found, I think, in the conditions confronting the beaver where it is working; and some, at least, of the determining factors are fairly obvious, as, for example, the character of the stream when the dam is first started; the site of the dam and its location with reference to where the beaver gets its boughs; the route taken by the animal (sometimes forced upon it by the terrain) in transporting the boughs to the dam, and other factors.

To illustrate: The position of the boughs is, I believe, most likely to attract attention in dams that have recently been started, especially in such as contain many boughs that are fresh-cut and untrimmed and therefore particularly conspicuous. It is a matter of common observation in beaver country that many dams are started on small or shallow streams that at the time do not permit of transportation of dam materials by water; such transportation becomes possible only as construction proceeds and sufficient water becomes impounded. If, now, the beaver secures most of its boughs at points above the dam site and drags them by way of the creek bed to the dam, most of these boughs will be found on the dam with their butt ends downstream; but if most of the boughs are brought from points below the dam, then they will be found with butt ends upstream. However, many boughs may also be secured off to one side or the other of the dam and, depending in part upon the direction from which the immediate approach to the dam is made, may be found lying crosswise, diagonally or in a variety of other positions.

As the pond enlarges the beaver will very probably bring in most of the boughs from points above the dam, transporting them now by the favored water route, and hence from this time on most of the boughs will doubtless be found, when in place, with butt ends directed downstream.

If any general statement is to be made in regard to the position of the boughs in beaver dams, rather than making any reference to the direction in which the butts are pointing it might be safer merely to say that most of the boughs lie parallel with the stream or the direction of the flow.

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TWISTED TREES

A BRIEF note, under the above caption, by Dr. A. R. Cahn, of the University of Illinois, appeared in SCIENCE several months ago (May 23). In it Dr. Cahn recorded his observations in Ontario, Canada, of evergreen trees having twisted bark and wood. Noting that the twist, in the trees observed, was predominantly to the right, he wondered why this was so. In a letter to Dr. Cahn on June 1 the following explanation was offered.

When a tree is exposed to the wind year after year, it assumes an oval shape, when considered in horizontal cross-section through the leafy portion of the tree. The trunk would be off-center on the side toward the direction of the wind. If the prevailing wind shifts from left to right consistently in the area in which the tree is located, it would seem that there would be