

T. M. Matson and T. W. Forbes of the Yale University Bureau for Street Traffic Research have obtained an analysis of nearly 800 actual "passes" of vehicles in New England, the central west and in the far west. The results are important for highway engineers in their determinations of the proper sight distances needed on roadways to make possible the passing of vehicles without undue hazard.

Using cameras in a traveling car, the passing car was photographed to determine its distance to the rear at which the pass started, and the distance in front at which the pass was completed. At the same time a stop watch measured the length of the time taken for the maneuver.

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OCEANOGRAPHY

Mariners May Have To Depend on Foreign Charts

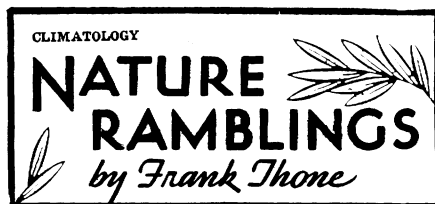
AMERICAN mariners may have to depend on foreign charts when they are in certain parts of the world, is the warning of the Hydrographic Office of the U. S. Navy in its annual report, just issued.

The Hydrographic Office has plates for something over 900 charts which are photo-reproductions of foreign charts. About one-third of these are good, another third are fair, and the remaining third are either obsolete or so badly worn that they should be replaced.

However, at the present rate of production the replacement of these bad plates can not be accomplished in less than 10 years, and in the meantime other plates now classified as still fair or good will have joined them. An increase in the chart-making personnel is indicated as necessary to remedy the situation.

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Fifty tons of pottery have been dug up in the excavation of the ancient British city at Colchester.



Gifts From the North

GIFTS from the East marked the world's first Christmas season. The East has been for ages a legendary land of wealth and splendor, so that it is only natural for folk to continue their visions of the three scholar-princes riding in on their camels from out the sunrise, bringing gifts of gold, and myrrh, and frankincense.

Yet for us who dwell in those lands of extreme temperature changes that are not too accurately called the "temperate" zones, the greatest gifts that nature brings to us come from the North. They follow the sled-tracks of Santa Claus, not the caravan-path of the Magi.

The snow itself is among the greatest of these gifts. A blanket of snow is that much water in natural cold storage, to be released more or less gradually, not running off quickly as rain does. This snow-storage is of especial importance in irrigated regions; there the people must very literally lift up their eyes to the hills from whence shall come their help. But even in humid lands winter snow is important as a source of soil moisture in spring; not so much April showers as January snows bring forth May flowers.

The cold itself, that comes down from

the North, is a great bounty. For the expansion and contraction of the rocks with changes in temperature, and even the alternate freezing and thawing of ice in their cracks, breaks down the earth's sterile crust into fertile soil. And the tremendous super-plows of ice, the glacial sheets, that once moved slowly over the continent, helped to make the richest of all our farm land. The corn belt of the Midwest is practically co-extensive with the glaciated area.

The ebb and flow of cold from the North and warmth from the South are the basic cause of the alternation of seasons, that give life in these latitudes much of its stimulating interest. If you look for the first robin and the first crocus in spring, if you watch the flight of wild geese in autumn and treasure the last gold and amethyst of the asters, remember always that these, too, are gifts from the North.

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ICHTHYOLOGY

Nesting Fish

● "It seems strange indeed to think of fish building nests and guarding their eggs and watching over their young like birds. But there are many species of fish who do this. Scientists tell us that the birds were developed from the reptiles and that reptiles evolved from fishes, so perhaps the birds acquired their habits of nest building from their fish ancestors."—A. Hyatt Verrill in *STRANGE FISH AND THEIR STORIES* (L. C. Page).

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ENTOMOLOGY

Impressive Aggregations

● "Locusts in migration swarm out of the sky in the Sahara borderlands, in southern Russia, in South Africa and on the Malay Peninsula in terrorizing numbers. They once did so on the Great Plains of the United States, leaving a lively memory of destruction that is still roused by the smaller migrations that may occur there any summer in spite of active control measures. I myself have seen the so-called Mormon cricket advancing from the relatively barren mountain pastures of Utah into the green fields in numbers which were not halted by the hawks, turkeys and snakes attendant on the swarm and feeding greedily; or the active assaults of men and children warned out to protect the cultivated lands. Migrating army worms and chinch bugs present equally impressive aggregations."—W. C. Allee in *THE SOCIAL LIFE OF ANIMALS* (Norton).

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