

ping out of the picture. But that doesn't help with present problems.

In 1930, New York, New Hampshire and Rhode Island were the only ones to have a stationary working population, although New England and the Pacific Coast states have less than one per cent. of increase. The greater part of the country has an annual increase of from one per cent. to 3 per cent. in the number at working ages.

Employment pressure is greatest in Utah, North and South Carolina, Georgia, Alabama, Oklahoma and Texas. The rate there is over 3 per cent. For every thousand male workers on North Carolina's farms, 36 new recruits are ready annually to step into the employment line, besides those needed to replace men who are stepping aside.

In the drought states, if there were no migration, the pressure for jobs would be tremendous. As the children now under 18 years mature, over a quarter of a million youths will reach working age in excess of those needed to replace the older men withdrawing from the group in productive ages.

Along about 1955 we may expect this particular problem to be reduced, but in the meantime something must be done for these thousands of young people.

Lack Training

One of the greatest difficulties of the problem is the lack of training of so many of these young people. Large families, high birth rates, and the later maturing of large numbers of young people are most frequent where incomes are at the lowest ebb. High school facilities are completely lacking in large rural sections of the United States. Grade schools are likely to have short terms, poorly trained teachers, and limited facilities.

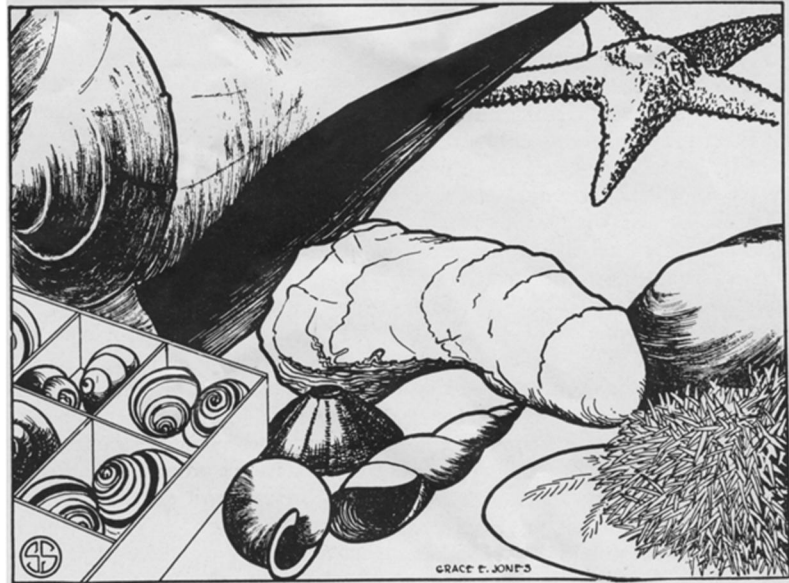
Of the rural youth who were on relief and were out of school, almost one-third had completed less than seven grades of school. Only one-fourth had gone beyond the eighth grade. They were fitted only for work on the farm or for unskilled labor.

A permanent CCC, which would enroll all young men when they left school and which would offer training fitting them for some sort of skilled work and which would also give training in citizenship, has been proposed as a means of removing large numbers of young people from competition for jobs.

Such government programs as that of student aid through the National Youth Administration are also designed to keep young people in school longer and so leave the jobs open (Turn to page 30)

Inexpensive Summer Fun You Need Only Eyes and Hands To Collect Shells

(Fourth of a series of 12 articles. Next week—Collecting Mosses)



Eyes and fingers are only essentials for collecting shells. Smaller shells may be kept in boxes like that at lower left; cardboard strips make very good partitions. Besides the two great classes of shells as represented by snails and oysters or mussels, collectors at the seashore will also find interesting-looking starfish and sea-urchins.

SHELLS, together with other beach trophies like starfish and sea-urchins, are among the most interesting objects a young collector can gather during a summer's holiday weeks, yet they are also among the easiest things to collect and take care of. Nothing is needed to capture them but eyes and fingers, and the simplest kind of boxes will do for their housing.

To be sure, dealers offer attractive trays, and these are very good if you really go in for a full-scale shell cabinet. But at the outset, ordinary small cardboard boxes will do for small shells, and cigar boxes or even larger containers for the heavier varieties, like conch and turret shells from the seaside, or river mussels from inland streams. For the very tiniest, most delicate shells, it is

For more information

send this coupon

to Science News Letter, 2101 Constitution Avenue, Washington, D. C.

Please send me **Bulletin 4**, containing additional information about collecting leaves and your list of books and leaflets on the subject.

Name

Street Address

City and State

advisable to nest them in small pillboxes containing a bit of absorbent cotton.

Containers of some kind, however, are really necessary, because even apparently stout shells are not as stone-strong as they may look, and tumbling them about in a loose mass will soon cause a good deal of breakage. For large numbers of smaller kinds, you can make compartmented trays by dividing up shallow cardboard boxes with cardboard dividing strips.

Most shells are the empty houses of animals of the great group of lower animals known as mollusks. This group is divided into several sub-groups or classes. Practically all land and freshwater shells, as well as a very large proportion of sea shells, belong to two of these classes. One is the group usually called bivalves, typified by clams, mussels and oysters; the other comprises the snails and their relatives. Your first collection, whether made inland or at the seashore, will very likely consist almost entirely of shells of these two classes.

You do not need to wait until you learn the names of all your shells before you arrange and classify them. Just put the ones of the same shape together. Shape is more important than either color or size, in classifying shells—or indeed in classifying most objects in natural history.

While the seashore is traditionally the prime collecting place for shells, it by no means has a monopoly in them. Snails go everywhere, in fields, in ponds and streams, up trees and bushes, even in the desert; and freshwater mussels are found all over the country wherever there are rivers or creeks. Some of the most beautiful of all shells are those of the tree snails.

You can also collect buried shells, if you can find a place where the bank of a stream or lake is being washed away, or where an artificial excavation is being made. These shells will usually have lost their colors, but their interesting shapes will remain. Some of them will be near the surface, and quite recent; others, more deeply buried, will represent little lives that were lived there centuries or even thousands of years ago.

Science News Letter, July 9, 1938

In British experiments, children given two-thirds of a pint of milk each day at school gained in weight and muscular strength more rapidly than children who did not get extra milk.

MEDICINE

New Epilepsy Remedy Works With Two-Thirds of 100 Patients

Diphenyl Hydantoin Prevents Seizures Entirely in Some Individuals; No Harmful Effects Noticed

FIRST reports of success in treating epilepsy with a new, scientifically selected remedy were presented by Drs. H. Houston Merritt and Tracy J. Putnam of the Boston City Hospital and Harvard Medical School at the scientific exhibit of the American Medical Association.

The new remedy is diphenyl hydantoin. It has been given to more than 100 epileptics who had previously been treated for a long time by such standard methods as phenobarbital, bromides, and high fat diet without obtaining any relief. Over half the patients suffering from grand mal epilepsy and about one-third of those suffering from petit mal have been entirely relieved. The frequency of attacks has been greatly reduced in another third of the patients in each group.

One of the patients, a 15-year-old boy, had had daily attacks of grand mal which were not affected by phenobarbital. From Sept. 15, when he started taking diphenyl hydantoin, until the following May 1, when he forgot to take it while away on a house party, he did not have a single attack.

The new remedy has been given to patients daily for periods from nine months to three months. No deaths have occurred and careful tests of kidneys, blood and liver have not shown any harmful effects. A few patients have had skin rashes which cleared up and a few had spells of dizziness and slight drowsiness but these also disappeared.

A few patients were not helped by the new remedy.

This remedy is the first ever tried in epilepsy after a careful scientific selection. Phenobarbital and other remedies which have helped some patients but not all were first tried experimentally on human patients.

The usefulness of diphenyl hydantoin was determined in the course of systematic trial of over 100 drugs. The trials were made on cats which were having fits or convulsions like those of epilepsy. One by one, these other drugs were dis-

carded because they failed to prevent fits with certainty. (See *SNL*, May 14).

Diphenyl hydantoin stood up under these tests and was then given to patients. An important feature of this remedy, Dr. Putnam pointed out, is that it does not induce sleep, as phenobarbital does. This shows that the convulsions of epilepsy can be controlled without putting the patient to sleep or drowsy.

Science News Letter, July 9, 1938

ARCHAEOLOGY

Find Signs That Norsemen Were in Canada, 1000 A.D.

A VIKING sword and armor, unearthed in northern Ontario, may prove once and for all that Norsemen took themselves far inland on American soil, 500 years before Columbus.

The important relics, unearthed at a mining claim near Beardmore, Ontario, have been deposited at the Royal Ontario Museum.

Director of antiquities, Dr. C. T. Currelly, has submitted pictures of the war gear to authorities on Norse archaeology in Europe, and is assured by all that the relics are the sort of fighting equipment used from 950 to 1000 A.D.

Prof. D. McArthur, deputy minister of education, is to submit a report on the historic objects to the legislature.

The discoveries consist of a sword, battle axe, shield handle, and pieces of rusty armor. The first discovery was made in 1931 by the owner of the mining claim, James Dodds, but its importance was not impressed on him until two years later by a university professor.

The Geographical Journal, British scientific publication, comments that the Norse armor find, if accepted as authentic history, tends to support the view that Vinland was not in Massachusetts, but farther north, and that Norsemen who explored the interior of America would have journeyed from Greenland south to Hudson Strait and across Hudson Bay and then toward the Great Lakes.

Science News Letter, July 9, 1938