

HOW MONTHS OF THE CALENDAR GOT UNEQUAL DIVISION.— Perhaps not every one is familiar with the reason why all months of the year have not the same number of days. Month really means "Moon," and originally stood for the time from one full moon to the next. As man progressed a little, he began to take account of the year and to divide this second standard of reckoning into so many months. Since, however, the moon goes round the earth in 29 days, so many hours, minutes and seconds, while the true year consists of about 365 days and a bit, the sun wouldn't exactly divide properly, and the calendar got into hopeless confusion. To put this right, Julius Caesar consulted with the most learned men of his day, and devised a new calendar giving the 12 months alternatively 31 days and 30 days apiece with a special arrangement for February in Leap year. This plan, however, was upset by the vanity of Augustus, the next emperor, who thought that the month called after him should have 31 instead of 30 days, and to get at this result rearranged the program in our present system of uneven months. Even so, the division of sun years by moon months wasn't exact, and so about a century and a half ago we had again to recast our calendar to meet the problem of what is really an attempt to divide a sum which won't divide exactly.

How Scientists Learned Secrets of the Plants

To discover how flowers feed—starve them; if you would learn why most plants grow upwards—pin them along the ground.

These are among the experiments conducted by students in the recently opened Sargent Laboratory for Plant Physiology. They study plants as living organisms, and become acquainted with the problems and dangers that beset the life of the commonest dandelion.

How plants breathe, how their food is obtained, and how they respond to imposed conditions are questions that can be answered only by experiments. The effect of supplying and withholding various "foods" is investigated; the rates at which the various plant organisms grow are measured under different conditions; so, too, is the rate of breathing.

Certain plants that require light for normal growth are placed in complete darkness, while others are bathed in light from colored arcs. Water supplies are varied and temperatures regulated. A geranium that has a curved stem is subjected to electrical treatment and made to incline a different way. In its struggles to resume its normal growth it reveals its various organs and their functions.

The Sargent laboratory is set in a small but well-stocked garden where plants are reared for experiments under almost perfect conditions.—London Mall.

How Long Fishes Live

How long does a fish live? Not out of water. Any boy can tell that from observation. But with proper food—everything it needs?

According to Popular Science Monthly, Major F. S. Fowler of England, who has been conducting a special study to find out, reports that a catfish, with which he is acquainted, is now fifty years old and is still lively. An electric eel in the London zoo, he found, lived 12 years. Other fish age figures, as given by Major Fowler, are as follows: Carp, thirteen years; goldfish, twelve years; herring, four years; salmon, three years; brown trout, six years. A bullfrog's recorded age was fifteen years; toad, eleven years, and the giant salamander, fifty-two years.

How to Pack China

Line your packing case with a good layer of straw, sprinkle it well with water before putting in each article filled and wrapped in soft paper and wound round with straw, and put a good layer of well-sprinkled straw between each layer of glass or china. The water makes the straw expand so that each article is firmly wedged in place.

For special treasures small cardboard or wooden boxes may be provided, into which they are tightly packed before being embedded in water-sprinkled straw.

How to Soften Fur Rug

If a fur rug has stiffened after being washed, it can be softened by applying the following mixture to the wrong side of the rug: Three tablespoonfuls of castor oil, one of glycerin and one of turpentine. This must re-

main on for a week, when the rug, still on the wrong side, should be well rubbed with a smooth stone or block of wood.

How Steering Wheel Works

The most recent improvement over the time-honored steering wheel for ships, says Popular Science Monthly, is an electric controller that closely resembles those used on street cars. A slight turn of the control handle by the helmsman causes the rudder to respond instantly.

Animals and Insects

Prepare for Winter

Ants, bees, wasps, flies and many other insects protect themselves during the winter by securing food supplies and constructing retreats.

The wonderful work done by ants, bees, wasps, spiders, butterflies and worms has been studied by many naturalists and researches have been charmingly described by Lubbock, Fabre, Maeterlinck and other able writers. The underground apartments and terraced homes of the ants, their domestic life, social organization and thoughtfulness, are among the great wonders of nature.

These extraordinarily intelligent insects not only store away an abundance of food for winter, but also they provide aphides to be milked and they cultivate fungi gardens and manufacture many food substances while passing the winter months underground.

Genius, individuality and temperament in animals enable them to solve all the problems of winter which they may at any time encounter. These vary in individuals of the same species. Among any group of young animals or birds or insects you may notice individuals varying in fear, timidity, curiosity, suspicion, sociability, aggressiveness and initiative. Hardly two will be found with similar characters and temperaments. They differ as widely as the members of a single human family. The strong and fearless members of any species give the leadership and develop the customs which enable them to meet the conditions of winter.

Pirate Perch Turns

Sunfish Out of Nest

Sunfish are troubled with what may be called a marine cuckoo—the pirate perch. This fish, which is either too lazy or else incapable of making a nest of its own, waits until the sunfish have completed their nest and then turns them out, installing itself in their place. Its eggs are frequently laid among those of the original occupants. These, however, are not disturbed and hatch out in due course, says the Vancouver Province.

Perhaps the most interesting nest found under water is that of the black-nosed dace. The fish clears a space about two feet in diameter and the female deposits a layer of eggs. Then a layer of stones is gradually placed over the eggs, the stones being brought to the nest in the mouth of the dace. On these another layer of eggs is placed and then comes another layer of stones. These alternate layers of eggs and stones are slowly built up until the pile reaches a height of eight inches or so.

The black goby forms a home for its eggs like a ball. This is constructed of pieces of weed interwoven and bound together, the eggs being placed inside. As is often the case, the male builds the nest and, after the eggs have been deposited, takes it in turn to guard it.

Had Benefit of Climate

The homes of the ancient Romans were imperishable because they were erected in a climate wherein there was practically no freezing and thawing. The same mortars used in our climate have not been at all successful. Furthermore, the same stones used by the Romans give a comparatively short life in our country. The mortar mostly used by the Romans was a mixture of lime and sand. To this was added some natural occurring ground volcanic rock. This corresponds to what is known as puzzolana, which, as indicated, has not been found satisfactory here.

Supported by Eight

Calhoun Clay was a typical modern parent. As he loafed in front of the garage a minister stopped and said: "Cal, why don't you go to work?" "Scuse me, sah," Cal answered with dignity. "Ah's got eight chillun toe support—"

"Well," interrupted the minister, "you can't support them by loafing here in front of this garage." "Scuse me, sah," Cal went on. "Low me ter finish mah remark, sah. Wot Ah means ter say is dat Ah's got eight chillun toe support me."

STATE MARKET NEWS

(C. E. Spence, State Market Agent, 712 Court House, Portland)

How the Potato Law Works Out

Before the day of potato grading and inspection in Oregon, a buyer in San Francisco would write that he wanted a car of good potatoes and he would describe as best he could the variety and quality, and the shipper would have to use his judgment as to what the San Francisco man really wanted. The judgment of the two might differ as to appearance, size and other features of the stock, and when the car arrived it would be rejected asnotcoming up to the stock ordered. Such rejections were all too frequent, especially when the market price was falling. But under the grading, stenciling and inspection laws we not have, such rejections will not stand. Now the San Francisco buyer simply wires for a car of spuds of the official grade wanted, and he gets that grade. For illustration he wires for a car of U. S. No. 1 and the shipper sends him that grade, with an official certificate attached, which guarantees that the contents of the car complies with the grade ordered in the contract for sale. And that certificate stands good in court.

No Surplus—Real Protection

Apparently there is little benefit in a tariff schedule on American products of which there is an exportable surplus, but on a commodity of which we consume considerably more than we produce, an import duty directly benefits the producer.

The yearly requirements for wool in the United States are for 600,000,000 pounds, and approximately 60 percent of this is imported. In the year 1880 there was one sheep per capita, while today the number of sheep have declined to four-tenths per person, while the consumption per capita now averages five or six pounds, hence the amount of wool imported is gradually increasing.

The first tariff was put on wool

in 1816, since which time it has been changed 21 times, and twice during this period it was put on the free list. The last change was made by congress in 1922, when the duty on scoured wool of the better grades was fixed at from 24 to 31 cents per pound. Since so large an amount has to be imported, the amount of duty has a very definite effect on the price that the American grower receives, and also to some extent on what the consumer pays for the finished goods.

Yet Some Farmers Burn Them

A ton of wheat straw contains \$4 worth of nitrogen when applied to the land; a ton of oat straw contains \$4.80 worth and a ton of corn stalks is worth \$6.40.

This Sounds Good
Dr. Howe of the National Research Council says this country must feed 150,000,000 people by 1950 and scientifically cultivate at least 38,000,000 more acres.

Wheat Harvest Is On
The wheat harvest in the northwest is now getting under full headway. While some sections are spotted the general average is for a good yield.

5-acre tract for sale, good soil, plenty water in dry years at low rate, well drained, 1/4-mile from Grants Pass on state highway. Land values increasing, good market for strawberries, etc. \$1200 cash if taken soon. Address P. O. Box 173, Central Point.

Low Fares to California

Reduced roundtrip summer fares are now in effect. Plan your trip to California and take advantage of them. Tickets with 16-day limit are on sale daily; also season tickets with Oct. 31 limit at slightly higher cost, permitting stopovers.

Four trains daily, including Southern California Express direct via Sacramento and Los Angeles.



Southern Pacific Lines

C. A. BOLES, Agent

S E R V W E L L

Magneto Charging Station

At the

Independent Garage

Central Point, Oregon

Drive in and have your Ford Magneto tested

F R E E

A fully charged Magneto gives your motor more efficiency and saves gasoline.

We have just installed the latest up-to-date Magneto Tester and Charger. Also Coil and Plug Tester. The only Tester and Re-charger of this make in Southern Oregon. If you have electricity at your farm we can drive out. Test and Charge your Ford Magneto and start your car. Charges at garage:

Magneto Tested, Free

Recharging - \$1.00

Mileage will be added for country drives

C. T. GENZEL