

GETTING FACTS ON APPLE PEST

(Prepared by the United States Department of Agriculture.) The codling moth is a troublesome insect enemy of apples, prevalent in most of the apple-growing regions. A special appropriation for meeting the situation in Kansas was made available to the bureau of entomology July 1, 1926, but in order to cover an entire season work was begun in cooperation with the Kansas Agricultural college during the spring. Damage was especially severe in Kansas and the Ozarks during the preceding season, and it is hoped that these studies will throw much light on the codling-moth problem throughout this region. Field experiments in control are under way at the Bentonville (Ark.) laboratory, which include the testing of arsenicals applied in various dosages and at various times, and of ovicidal and larvicidal materials. Questions relating to the quantity of spray residue on fruit at harvest time are being studied at the Yakima (Wash.) field station. Tests of a large series of baits for moths in the orchard and in packing sheds are also being made. An apple ferment has been found to be the best balt material of those tried, though a ferment of molasses and yeast is also good. None of the essential oils tested shows much promise.

At the Sligo (Md.) laboratory the feeding habits of the codling-moth larvae are being studied, especially those just hatched. The development of insecticides other than arsenicals is being attempted.

#### Variety of Apple Trees

Changed by Top-Working "Apple tree varieties may easily be changed if the grower wishes to follow directions and use a litle care in his work," says Prof. G. W. Peck of the New York State College of Agriculture at Ithaca.

"The undesirable Ben Davis may be top-worked with some variety of real quality, such as McIntosh or Spy. Grafting may also be used to get another variety of fruit on an isolated plum or pear which does not bear because of lack of pollination.

"Any one may graft fruit successfully if he will take well-matured oneyear-old terminal growths from known bearing trees, keep the scions dormant, graft when growth is just starting, and be sure that the growing or cambium tissues of the stock and the scion come in contact so as to insure a union."

Failures of grafts may often be laid to the neglect of the grower to be sure about this union, and another important point is the careful placing of wax over all cut surfaces immediately after the graft is placed. This is to keep the cut from drying out. For best results, scions should be set within a few days at a time when the first leaves of the tree become from a quarter to half an inch long. Warm weather should be selected for the

## Parasite of Gypsy Moth

The Department of Agriculture has recently introduced into the United States a parasite of the gypsy moth which is particularly promising. This insect is called Compsilura concinnata Meigen. It lives on about 100 host insects. It has now been studied for eight years by experts of the Department of Agriculture, and these authorities feel that the insect will prove of great benefit, It will not only check the spread of insects of the kinds it was intended to control, but it has also shown ability to combat other dangerous insects in this country.

## 

#### Horticultural Notes

A good raspberry plantation will be

profitable for six to ten years. Ordinarily the quantity of fruit and vegetables used on the farm is in di-

rect proportion to the quantity raised. In pruning see that dangerous crotches and crowding of limbs are

eliminated from young trees to avoid breaking down when the trees come of age. The earlier this shaping is done the less shock to the trees. Cutting the firewood with a carpen-

ter's saw is just as sensible as using one to prune the fruit trees. Buy and use a good pruning saw. Efficient tools make it easier to do efficient work. Ninety cents for a pair of hand shears and a dollar and a quarter for a saw is an investment justified even in the home orchard.

Black walnut trees seem to be poisonous to apple trees, if planted near them. They are also harmful to tomatoes, potatoes and corn.

After all rotten apples, pruned limbs and other refuse have been cleared up about the orchard, give your trees a thorough spraying.

In pruning gooseberries and currants, remember that they bear fruit on wood that is two years old, instead of last year's growth as with raspberries and blackberries.

(By REV. P. B. FITZWATER, D.D., Dean of the Evening School, Moody Bible In-stitute of Chicago.) (@, 1927, Western Newspaper Union.)

### Lesson for March 27

REVIEW-STUDIES IN THE CHRIS-TIAN LIFE

GOLDEN TEXT-If ye love Me keep My commandments.—John 14:15.
PRIMARY TOPIC — What Jesus
Wants Us to Do.
JUNIOR TOPIC—The Christian Way

of Living.
INTERMEDIATE AND SENIOR TOP-IC-What it Means to Be a Christian. YOUNG PEOPLE AND ADULT TOP-IC-Marks of a True Christian.

The following methods of review are suggested:

I. A Descriptive Essay Method. Each member of the class should be assigned to the task a week ahead of the preparation of an essay on the topics involved in the quarterly lessons, as for example: What constitutes a true Christian. Following Christ. The prayer life of a Christian. The Christian and his Bible. The home life of a Christian. Christian stewardship. The Christian and the missionary obligation.

II. The Question Review Method. The teacher will prepare a list of questions dealing with the various phases of the quarter's lessons. These will be written on slips of paper and the members of the class will draw them. As examples of questions note the following: What does following Christ involve? What is the Christian's responsibility as to his Bible? What is the Christian's obligation as to stewardship? What are the duties of the members of the home? What is the Christian's obligation as to the evangelization of the world? What is the Christian's hope? Is Christ coming again? Will there be a resurrection of the body?

III. The Summary Method.

This method can always be used to good advantage with the advanced classes. The outstanding fact or facts should be grasped and the principal teaching of the quarter's lessons stated. Suggestions:

Lesson for January 2.

Jesus first calls men to be His disciples. He then calls them to have fellowship in His service. Those who receive this two-fold call will walk as He walked.

Lesson for January 9. The one who really follows Christ shall be hated and opposed. Having fellowship with Christ, he will love his enemies, do good to those who hate him, bless them that curse him, pray for those which despitefully use him.

Lesson for January 16. The Bible furnishes the Christian with full knowledge of God and man's obligation to Him. The only way to be able to stand firm and true in the coming perilous times is to be thoroughly grounded in the knowledge of the Scriptures.

Lesson for January 23.

Jesus, though divine, resorted much to prayer. If he needed this fellowship, how much more do His follow-

Lesson for January 30.

Followers of Jesus may expect temptations, but divine help is available for every need.

Lesson for February 6. To every believer has been given certain talents such as gifts for service, knowledge, time, money, to be used for the honor of His Lord. A time of reckoning is coming at which reward will be given for fidelity, andjudgment meted out for infidelity.

Lesson for February 13. The home is the oldest and most important institution in the world. The most effective way of making strong and pure the church, society and the nation is to make the home Christian.

Lesson for February 20.

The subject of the kingdom is unler solemn obligation to permeate society and let his light shine so that the heavenly father may be glorified. Lesson for February 27.

Every believer has two natures-the flesh and the spirit. The only way to overcome the flesh is to be filled with

Lesson for March 6.

The Lord permitted persecution to fall upon the church to cause the disciples to be scattered in order for the widening of the testimony.

Lesson for March 13. Christ has imposed upon every disiple the obligation of witnessing for Him to all the nations of the world.

Lesson for March 20. The Christian's hope is the personal return of Jesus Christ to take him to His heavenly home. When Christ comes, the body of the believer who has fallen asleep will be resurrected and living believers will be caught up into glory with Christ.

God's Indulgence

God is not over-indulgent. He is too loving for that. Because He loves us, and plans for our growth, He cannot let our faults go without correction. His justice stands side by side with His mercy, and cannot be evaded or left out of account .- Southern Meth-

## Finding Strength

Where shall we find strength for practical separation to God, except in God Himself-Echoer.

Sunday School Land of the Tiger
Lesson



The Crowded Hooghly at Calcutta.

(Prepared by the National Geographic DENGAL will ever remain the

land of the tiger to the small boy, but it is more properly the land of jute and tea to those who think in economic terms. This large province at the eastern extremity of India straddles the northernmost point of the Bay of Bengal, and stretches northward to the peaks of the Himalayas. Thus it has two totally different sections, the low and often marshy plains of the south, and the rough hills and mountains of the north. It is separated from Tibet only by the diminutive native Indian states of Sikkim and Bhutan.

Bengal is slightly larger than Kansas with as many inhabitants as are found in New York, Pennsylvania, Illinois, Ohio, Texas and Michigan combined-two-fifths as many as in the entire United States. More than 80 different languages are spoken among the human horde, not to mention the various dialects. That language in India changes every ten miles, perhaps, is not far wrong.

The narrow northern extremity of Bengal resembles that of Idaho, and, like our western state, Bengal spreads out as it stretches southward. Below the northern neck the border line of Bengal zigzags in all directions.

Bengal's gateway is its most homely feature. Those familiar with the murky rivers of the province know when the coast is near, even before land is sighted, for the beautiful indigo-blue water of the Bay of Bengal begins to take on a brownish hue, due to the silt that is brought down from the north by the Ganges and a labyrinth of rivers and creeks that pierces the coast line. Between the banks of the numerous channels are swampy peninsulas covered with malaria-infested jungle land in which roam the famous Bengal tigers, a few remaining elephants, and other wild animals. These wilds and the waterlogged lowlands just north of them are called sundarbans.

## Farming in Rowboats.

When the Ganges goes on its annual rampage and overflows its banks for 200 miles from its mouth, the sundarbans are almost totally submerged. The less-flooded area is planted in rice and it is an interesting sight to see "rowboat farmers" tending their submarine crops. When the water subsides, it leaves a fertile layer of earth on the lowlands and in the river valleys, making the southern Bengal regions prosperous agriculturally. Jute, rice, wheat and many other products thrive in the newly fertilized earth.

While the Ganges adds much to Bengal's prosperity, sometimes its roaming disposition causes real estate tangles as does that of our own Rio Grande. It tears away its banks and carries with it the soft alluvial soil of the south, often changing its course. As a result an owner on the east bank may wake up one morning to find the river a mile across the plain while another on the west bank may find his land inundated and his estate lost. As a result a special branch of jurisprudence has arisen in Bengal to adjudicate such difficulties.

Calcutta, capital of Bengal and the largest city of India, lies about 80 miles up the Hooghly. Since it is the only large port at the head of the Bay of Bengal and is easily reached from the interior by numerous canals, rivers, and railroads, Assam and neighboring provinces also use it as their port. Therefore the Hooghly is filled with shipping. The passenger bound for Calcutta is not sorry, for the odd little native junks and large oceangoing vessels absorb his attention from the ugly marshes and thickets

The first evidence of human existence as Calcutta is neared is the appearance of a few houses and then the tall smokestacks of jute mills that loom up above low brick buildings, where fute sacking is made in exormous quantities, and shipped to all parts of the world. Much of it is used in the United States, particularly in handling our farm products. Little does the cotton picker of the South realize that the more cotton he picks, the more mouths he helps to feed in Bengal, for the cotton-bale wrappers are usually made of jute. Likewise the farmer cultivating his potato fields, does not realize, per- | sugar.

haps, that the size of his crop helps determine how many natives are to be employed, and that the least failure of the crop affects the jute mill workers. Potatoes are, in the large part, handled in jute sacks. More than \$125,000,000 worth of jute products are exported from Calcutta annually.

#### Docks of the Hooghly.

A little farther up the Hooghly, the docks which stretch ten miles along the river front come into view. Some of them are the finest in the world, equipped with the latest devices for handling cargoes. They are filled with articles of commerce, and roar with activity. Jute, rice and tea appear to be the staple products for shipment. The tea exports from Bengal help India to keep its reputation as the chief tea exporting country in the world. Perhaps that reputation is, in part, due to the fact that Hindus and Mohammedans are not tea-sippers and nearly the entire production is available for foreign markets.

Calcutta includes Calcutta proper the trading center, Maldan, the residential section, and Howrah, on the opposite side of the Hooghly, the manufacturing center and terminus of three large railroads. Together they are called Greater Calcutta and have a population greater than that of De-

In sharp contrast to the commercial and industrial districts, Maidan is a place of elegance with beautiful parks and lakes, and fine residences and government buildings. While thousands of Indian natives who seldom enjoy a square meal throng the streets of other sections, Maidan's beautiful boulevards are paraded by the wealthy and traversed by luxurious automobiles driven by liveried chauffeurs.

In the center of Maidan is a park that is one of the few breathing places in the vicinity of Calcutta. It ranges from three-quarters to a mile and a quarter in width and about two miles in length. The palace of the of Bengal is at the north end. This is a mansion of white stone, twice as large as the American White House and much more magnificent and impressive. Here the governor of Bengal presides over the destiny of his province with all the pomp and splendor of a European monarch, partly for his personal comfort and partly to impress upon the ignorant subjects the dignity and power of the British.

## Maidan's Dress Parade.

New York has its Fifth avenue dress parades and so does Maidan. with the Indian contingent far more rich and colorful. The Maidan parade sometimes includes the viceroy when he happens to be in Calcutta. Then there are other high government officials, rich rajahs of the several hundred native Indian states in their gorgeous robes and jewels, and Anglo-Indians, as the offspring of British fathers and Indian mothers prefer to be called.

Calcutta owes its beautiful government buildings to its distinction as the capital city of India prior to 1912 when the seat of government was renoved to Delhi.

Nearly all Bengal is a flat fertile plain from the Sundarbans to the foothills of the Himalayas. This foothill country is reached after a day and night of rough train riding from Calcutta. A narrow-gauge railroad is then taken to reach Bengal's roof. Darjeeling, perched 7,000 feet up among Himalayan peaks.

Darjeeling's reception committee consists of an army of porters who take the place of express trucks. They are not men, but Tibetan women who are famous for their strength.

Most of Darjeeling's inhabitants are Bengalese, Nepalese, Bhutanese and Tibetans. All the native women seem to try to "outjungle" one another in wearing ornaments. Even those who look as if they had never had a square meal are bedecked with earrings, anklets, bracelets, and necklaces of silver, glass or turquoise.

Darjeeling is also a trading post between the mountain people and the Bengalese of the lowlands. Sunday is the favorite trading day. Foreigners bring skins, tea, salt, wool, musk and cattle to the Darjeeling markets and return to their countries with ivory, indigo, cotton goods, dried fruits and you."



#### WISE DOCTOR

"I see," said the young doctor just starting to practice, "that Mrs. Smith now is coming to you. I examined her thoroughly and couldn't find a thing the matter with her."

"That's where you are wrong, son," said the doctor. "That woman had a trouble that provides doctors with about 90 per cent of their business. It's called imaginary ills and requires long and expensive treatment-if you want to get rich."

### GOING ROUND TOO MUCH



Lady Patient-I'm dizzy so often, doctor, and it's very inconvenient as I'm very active.

Doctor-That's just the trouble, madam, you're going round too much.

Mary No. 987654327, Etc. Mary had a little waist, Where waists were meant to grow, And everywhere the fashions went

Not That Kind

"Was your husband chopping wood last evening?" inquired Mrs. Pryer of one of the neighbor women. "Chopping wood, no! He was de-

What gave you that idea?" "Why I heard him tell a man on the car that he accumulated a good healthy pile of chips before he quit."

tained in the office all the evening.

Right Aim but Wrong Shooter Briggs-Speaking of resolutions, one of my offspring resolved: I will try

to be even more manly this year than I was last. Griggs-That's a noble aim. You should feel proud of the boy who

made it. Briggs-Boy nothing! It was my daughter.

## Borrower's Nerve

"The Jimsons are going to move." "Into a better neighborhood?" "So they say."

"Well, send over and see if they won't leave us their lawnmower we've about worn it out, anyway. Tell them they will lose caste if they start out in a stylish locality with a lawnmower."

## COULD SUPPLY THE TEETH



Legislator (to fellow grafter)-"The trouble with my bill is a lack of teeth." Old Gent (overhearing the remark)-"Beg pardon, sir, but if your Bill lacks teeth let me give you my son's card. He's a dentist and can supply the right kind."

## Epilaughs

Oh, save all your sorrow For Ferdinand Bepps, Who walked down the stairs Without using the steps.

#### Silence Mrs. Johnson-If you hired a ste-

nographer I won't rest unless she is an uglier woman that I am! Johnson-But I haven't time to nographer-I've got to have one right

#### How Shocking Show Manager-What makes you

think that the fruit they threw at you was canned? Ham Actor-I felt a jar. An Unsatisfied Longing

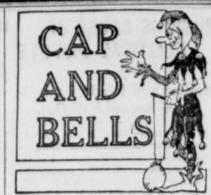
#### Young Wife-Before we were married you said you'd be willing to go through anything for me. Husband-So I am, dearest, but the

way you hold on to your fortune is a caution.-Brooklyn Enterprise.

## A Question of Taste

Jim-Do you know why I like oys

Jam-No, why? "I don't know. That's why I asked



#### MERCY!

"My neighbor said I would get some kind of poison here that is used to kill insects on my rose bushes. Do you know what it is?" asked the prim old maid.

"O, hellebore," said the drug clerk. "Young man, I shall report you for swearing at me like that for asking a simple question," exclaimed the woman, as she hurried out of the place.-Cincinnati Enquirer.

#### WHEN MOTHER FUMES



Daughter-I smell smoke. Dad-Don't worry, it's your mother in the next room-she's just fuming.

## Hears "Here's" All Right

Just say to wife,
"My darling, here's
Ten bucks," and see
How well she hears.

## Helping Him Along

It was 11:45 o'clock at night and the conversation in the parlor was lagging. "A penny for your thoughts," she re-

marked. "Why, I was just thinking of going home," said he.

"Give him a dollar, Mary," her father called from the top of the stairs. "It's a bargain."

#### The Chase

Jealous Wife-At your age you really ought to be ashamed of yourself. You are always running after pretty

Husband (reassuringly)-My dear, that ought to put you quite at your ease-it proves that they are always trying to get away from me.

## Oh, Joy!

"You look radiant, old man. Starting off on your vacation, I suppose." "No; just learned that the wife's relatives aren't coming here on theirs."

## Too Quick

Percy-What makes you think it was quicksand? Peggy-I put some in an hour glass. and it ran through in 15 minutes.-Cin-

## NOT RED ENOUGH?

cinnati Times-Star.



"Hawthorne's 'Scarlet Letter' is full of color.

"Yes; but do you think it's read enough?"

George and His Hatchet

# George laid his hatchet to a tree. His father said, "That's pretty good: It surely would be far from me To spank a boy for chopping wood!"

Thrift "Do you agree with Ben Franklin that everybody should practice thrift?" "I do," answered Senator Sorghum. "A number of able politicians would hunt over the whole city for a ste- be better off today if billionaires had saved their money instead of investing it in a campaign."-Washington Star.

## She-We made 60 miles an hour go-

Fast and Furious

ing home in Jack's car last night. Her Friend-What was the quarrel about, dear? Notches

ring, dear. Platinum with five diamonds. Gloria-Seven would have been more appropriate, love. This is the seventh time, you know.

Chester-I've bought the wedding

## Thrifty

Mrs. Crawford-How is it that you. and your husband can't agree about a budget? Mrs. Crabshaw-He tried to put

over too many thrift weeks on me.