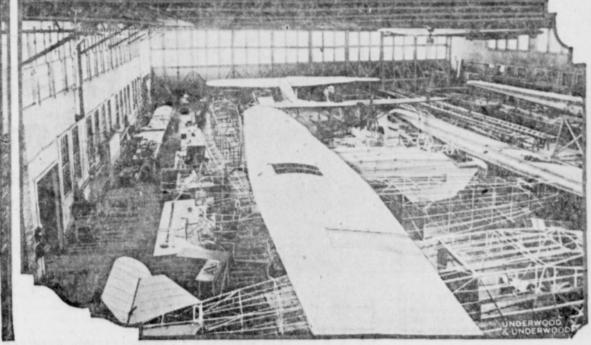
Mass Production of Commercial Airplanes



Airplanes for the Colonial Air Transport company in the Fokker plant at Hasbrouck Heights, N. J., which are being rushed to completion for use in a huge network of air lines for passengers, United States mails and expresses which open this spring, linking Montreal and intermediate cities with New York and Chicago.

Use New Rays as Aid to Man

Scientists Employ Them in Radio, Surgery and Many Inventions.

Washington.-The same day's news carried a story from London that ultra-violet rays are making the animals of the zoo more contented, and a story from Camden, New Jersey, that seeds and tubers treated with X-rays produce greater yields. These are additional evidences of the world's debt to rays, many of them little known. A bulletin from the Washington headquarters of the National Geographic society deals further with this sub-

"Rays are not abstractions of physicists or unusual phenomena to be dealt with only in laboratories," says the bulletin," "They are more truly the mainspring of the earth, making life in all its forms possible.

Make Life Possible.

"The sun's rays are the prerequisite for the world as we know it. But for the warmth and light flowing to us through 93,000,000 miles of 'space,' the earth would be a lifeless cinder. without vegetation and without even the lowest animate forms. As It is, the rays or waves of heat and light flow to us in a mighty stream, for all practical purposes unending, and in this continual bath of life-giving rays we very truly 'live and move and have our being."

almost inconceivable speed of light essary in our daily life. Indirectly and heat waves (186,000 miles per you this instant left its far-away source only eight minutes ago.

Plants Need Rays. "It is not only by warming us di-

Missouri and Kansas Coeds Let Hair Grow

Kansas City, Mo.-Coeds at the University of Kansas, Lawrence, and the University of Missouri. Columbia, seem to be competing in letting the hitherto popular locks grow long again.

Girls at both Institutions started to let their hair grow, much to the disgust of tonsorial artists in both towns.

A recent check-up on the Missouri campus revealed that 60 per cent of the girls either had long hair or were "expecting to have in the near future." Kansas the percentage is slightly larger, and exponents of lengthened tresses are gaining new cohorts daily.

Hair Seal Is Favorite Food of These

Animals and Nature Helps

Them in Chase.

St. Michael, Alaska.-Heavy weath-

er, with tremendously large ice floes

in Bering sea, promises the natives

of Kotsebue sound the most favorable

A good market exists this year for

the fine white polar bear skins, and

these arctic nomads are so plentiful

The white king of the Arctic regions

polar-bear hunting in a generation.

BERING SEA ICE FLOES BIG AID

IN HUNTING THE POLAR BEAR

rectly and by keeping our seas and streams from being eternally frozen that the sun's rays benefit us. Every good thing that we have, except some of the minerals and ores, can be traced to their beneficent work. The soil upon which our plants live has

rain which the sun's rays lifted from the seas and cast down on the land. "Plants which grow in the soil can themselves live only when bathed by sunshine. Plants not only exist because of heat and light waves from the sun, but, fortunately for mankind and the animals, they contrived millions of years ago an ingenious trap for extra energy from the rays which they store away. This trap is a mysterious substance called chlorophyll, the green coloring matter in all soil-growing plant leaves. When the rays strike chlorophyll they manufacture cellulose, starch, and sugars-and on these products the life of the animal world is built. Every plant, then, is in reality a separate factory, operated by waves of energy from a 'power house,' 93,-000,000 miles away, through its chlorophyll 'motor.'

been washed from the original cheer

less lump of ash and stone by the

Each Plant a Factory.

"These factories turn out directly various commodities that man must have: vegetables, fruits, and nuts that make up a large part of our diet; cotton, flax and other fibers which contribute largely to our clothing and draperies; the woods which help to "Our essential diet of rays is fresh | build our houses and implements; and as well as potent, Because of the many other substances which are necthese 'factories' supply our remaining second), the sunbeam which strikes food and clothing; for our food animals produce our meat from a vegetable diet, and so, too, our wool and silk mohair are the indirect products of the ray-built vegetable world.

"It is not only the rays of the present that contribute to our well being. Sunbeams that millions of years ago built tropical vegetation which was fossilized into coal today warm our houses and turn the wheels of our factories. The rays that left the sun weeks or months or at most years ago are helping us in still another way. They evaporated water from the sea which fell as rain and was stored up behind dams. When this imprisoned water is made to turn dynamos the electricity that comes to us over wires to light our homes and toast our bread is only the beneficent sunbeam in another form.

Heat and Radio Waves.

"How we turn heat rays to account is well known. They fly from our radiators to make our homes livable in winter; they cook our food; they produce steam for many of our powerhouses; and in numerous other ways they are barnessed for man's benefit. "Within recent years we have har-

nessed another group of waves which

before this time, since the beginning of the world, went unused by man. These are the Hertzian or radio waves which now all over the world are carrying their burden of music and the spoken word, and even are transferring photographs. Inventors are seeking to place other burdens on the strong young shoulders of the radio waves and assert that it is only a question of time until they will carry motion pictures and even power which may turn wheels far from the source of energy.

Unshackling the Ultra-Violet.

"Even the little known waves, shorter than those of light, are now doing their bit to push man's civilization forward. The ultra-violet ray has for many years played an important part in photography. Now its value in improving human and animal health is being recognized. Ordinary window glass does not permit ultra-violet rays to pass through; so that in reality our windows, made to admit light and warmth, are barriers against one of Nature's chief life-giving forces. Special glasses which permit ultra-violet rays to pass are coming into wider use, especially in hospitals where patients may thus be given the benefit of one more force to help them to health.

"Since its discovery a generation ago, the X-ray has performed innumerable services, chiefly in permitting photographs to be taken of fleshcovered bones and internal organs, and in the direct treatment of certain diseased conditions. But the Xray is so potent that it can bring harm as well as good, causing tissues to wither away or become infected when exposed too long to the powerful waves. Man has learned to tame this ray, however, and is even finding new uses for it as is indicated by recent experiments which show that seeds exposed to X-rays produce great-r yields than those untreated.

Tiniest Ray Most Penetrating.

"One of the rays to become known thrown off by radium. This is in reality a super-X-ray and has found its greatest field in carrying farther the work of its close relative.

"The most mysterious of the rays is that which has come to light within the last year or so, the Milliken of a famous baking company. or Cosmic ray, which is the ultimate at the present time in vibratory rate and shortness. It is estimated that there are 635 trillion of these rays to the inch. So far, man does not know the origin of these infinitesimally small rays nor has he been able to utilize them. Apparently they do not | ly to the true artist taste. come from the sun, because they reach the night side of the world as well as the day side. One theory is that they are given off by far away nebulae-solar systems in the making. They penetrate so deeply when they strike that it requires eight feet of solid lead to stop them. The bold est hypothesis in regard to their effects is that the life of every animate cell depends upon its bombardment by these tiny waves from the heavens. and it even has been suggested that life itself was originated by them."

Almost 500 varieties of narcissus were imported into this country last

CALENDAR **GIRL**

THE

By STERLING BRIGHT

ND Corydon?" inquired a visitor at the Artists' club, once himself in the profession, graduated into a gentleman of leisure through a rich légacy, and paying a brief visit to his old-

"Oh, Corydon-eats!" was the sententious reply, as if that fact evidenced a very fair condition, indeed, for a devotee of the palette and easel.

"And Paul Willis-still a dreamer?" "Still the same old hand to mouth existence. Yes, Willis had grand ideals-a poor capital in these practical times. He dropped out of the club months ago."

In a breath the absent fellow artist who possibly did not eat-was dismissed from discussion. And, indeed, he did not eat at just this juncture!

There was not a man in the club who did not remember the soulful eyed, impulsive young fellow who had started in to set the world on fire. It was work, not gain, that was the starting motive in his career, and the labor loved because he aimed at a high standard. He was a color special ist, and etchings and pen and ink ef fects had become the fashion.

A few portraits, perhaps twice a year a color scene, but the orders few and far between, and the cheeks of the handsome, graceful youth became wan, the old fire of genius left his eyes. With poverty bringing the threadbare garb, pride drove him to seclusion. He became isolated and forgotten.

If his two former artist associates had seen him at the hour when amid luxury and indolence they discussed him, they would have probably pitied this piece of poor driftwood.

In the remotest corner and smallest oom of an old dilapidated central building, Paul Willis sat working with

pencil and brush. It was a sadly forlorn place, the windows grimed, the floor destitute of carpet or rug. Light and heat were wretched. Upon a table beside the easel was a loaf of immaculately excellent bread, a tempting fruit cake deep frosted and rich looking, a ple, fair and perfect-for expert housewives say that such things can be,

The artist had drawn with pen and ink in outline a faithful presentation of the articles before him. Now he began the work that had for him an indescribable attraction, the coloring of his sketch. More than once a feverish famished expression crossed his face. He moistened his dry lips with his tongue and set his teeth firmly. It was the evening before when he had last tasted food. Ever since then, penniless, hungered, weak in body and brain, that torturing display of food had tantalized him to the point of des

Amid the fascination of the color processes, now his soul soared temporarily above his physical needs. A bitter smile crossed his face as he real ized that his labor was strictly commercial. A picture piece, exquisite and perfect as an art plaque, he knew that when his work was done, reproduced from the printing press, it would show lettering advertising the wares

He lay down his tools of usage at last. Daylight was fading and he had worked rapidly, but his toil had its recompense. Side by side, the real contrasted with the artificial and the fine, delicate shades of the former would have appealed the more strong-

There was a tap at the door. Evidently the lone artist was expecting his caller, for he spoke out eagerly:

"Come in, Morse." A brisk, bustling business-faced man entered. He wasted no time in civilities, but walked to the easel without excuse or hesitation, drew a magnify ing glass from his pocket and critically inspected the color sketch.

"Excellent-your very best," he announced complacently. "You improve every day."

"And grow hungrier," observed Willis with a faintly bitter smile. "Can I have—the samples?" he added, with a meaning sweep of his hand towards the dainties.

"Why, surely," assented his visitor, with a stare of surprise. "What do you want them for?"

"To eat, of course." "You mean-" began Morse, and paused, an indefinably shocked expression crossing his face.

Willis made no reply. He seized the loaf of bread with the flerceness of a famished animal, tore a handful from its soft mellow heart and crowded it into his mouth. Once he choked as if with direful humiliation. Once the tears fell over the loaf. His visitor

watched him with sober, pitying eyes. "That's better," observed the artist, striving to appear satisfied. "Anything new?"

The other came close up to him. He placed a trembling hand on the shoulder of the artist,

"As bad as that," he said in a subdued tone. I never guessed it-

there." He placed his hand in his pocket and drew out some money, counted it, doubled the amount. Willis recounted It and pushed back the excess sympathy had impelled, saying:

"My rightful hire, Morse. You're a good fellow just the same."

"There is something else," Morse ald, "the Calendar Girl.

Above a cot in a kind of alcove hung colored crayon sketch, Willis glanced at it with swimming eyes. 'No," he said resolutely.

"Why not?" urged Morse, "You know it was made for that rich manufacturer, Payne, who is so proud of his daughter. He has been at the office after the original crayon.'

"It is mine; money will not buy it," said Willis sententiously and bowed his visitor from the room.

Buy it-as soon would he sell his soul! In his poetic way the work on that picture, taken from an oil painting, had been the inspiration of his

Willis had the first full meal of weeks that day, for he had money now. The rescue was too late, however. He woke the next morning in a burning

There was only the woman in charge of the apartments to nurse him. That afternoon a stylish automobile drove up. A young lady alighted. She was the original of the Calendar Girl. When she knocked at the door of the artist's room the old woman met her. "He has been going on all day that

way." she said. Miss Elinor Payne had come, hoping to prevail upon Willis to sell her the picture. But now-she stood in a strange maze listening to the ceaseless pabble of his parched lips.

His glassy eyes were fixed upon the picture. The lone burden of his mind had given way. In poetry, in wild passionate appeal he was telling that mute companion of his lonely life the secret of his life-how he adored the ovely face his art had perpetuated.

Never had the fair, innocent girl een so moved. Tears were in her eyes as she noted the wretchedness of this poor soul, whose delicate face showed the lineaments of genius.

"Everything must be done to save so precious a life," she told the woman. Then day after day for a week some irrisistible influence drew her to the place which her money transformed into a haven of comfort.

One day she came when the mournful eyes of the artist were once more calm and clear. The crayon was gone from its accustomed place. He handed it to her done up in paper.

"I have learned of all your kindness," he said simply.

"You wish me to take the picture?" she asked. "It is yours. I have seen you in

reality-there is a more lasting portraiture in my heart."

He spoke with the desperation and disappointment of a flitting spirit. "You must live!" she cried impulsively, reading the oracle aright-"for

my sake-will you not?" His soulful eyes strove to read the ecret of that beautiful face. To Elinor he was as a being above the common. She flushed. The admiration of his

glance thrilled her, "You must let me drive you each day till you get well," she said. And that was the beginning of the beautiful end that saw two harmoni-

ous souls joined in undying love and

Weak Character May

Have Jaw of Steel

The man with a weak chin is not cessarily a man with a weak character. Such a person may even have bulldoggish qualities, medical scientists tell us, and in all probability his lack of chin was caused by the way he was fed at birth. Naturally fed bables stand a better chance of developing strong jaws than the artificially fed.

People with receding or weak chins have often suffered from cickets in childhood, and hardly anyone needs to be reminded nowadays of the relation betwen a diet deficient in vitamines and unsatisfactory bone formation.

Many parents, when they fear that their children's chins are not going to be of the best, consult a dentist, who may suggest that the child shall wear in the mouth an apparatus for stretching the jaw. This treatment continues for months, sometimes

Crime and Punishment

We were aroused one morning in early summer, writes a subscriber, by a great outcry among the birds, particularly by the harsh cry of the blue jay. On going out to learn the cause of the disturbance we found numbers of birds flying around an oriole nest which we had been watching with a great deal of interest. The jay birds were flying about in much excitement and several distressed little orioles were bravely fighting them. A closer view revealed a jay bird with his head caught in the nest. In trying to rob it he had made himself prisoner and neither his own efforts nor those of his companions could free him. Nearly all day he struggled and the other birds flew unhappily about, but gradually his efforts grew feebler until they ceased entirely and he was left alone. Of course, the nest was rulned, but until far into the winter he hung there high in the air, an object lesson to all thieves .- Youth's Companion.

Geode Stones

Geodes are rounded, hollow aggregates of mineral material, or indurated nodules, either empty or containing a more or less solid and free nucleus and having the cavity frequently lined with crystals. They are sometimes called "potato stones" on account of their size and shape. The name seems to have been given them because they are occasionally found filled with soft earthy ocher, Agate, is a geode built up of concentric lay ers of chalcedony.

Improved Uniform International

Sunday School Lesson

Lesson for March 6

SHARING THE GOOD NEWS

LESSON TEXT-Acts 8:4-8; II Cor. GOLDEN TEXT-Ye shall be my wit-

PRIMARY TOPIC - Telling Others

JUNIOR TOPIC-Winning Recruits for Christ's Army.
INTERMEDIATE AND SENIOR TOP--Telling Our Companions About

YOUNG PEOPLE AND ADULT TOP-Christian Evangelism: Duty, Meth-

I. Preaching Everywhere (Acts 8:4). Following the stoning of Stephen. the enemies of the Lord were more active than ever in their efforts to stamp out the new faith. With Saul as their leader they dragged men and women from their homes and imprisoned those who confessed Christ. The devil overreached himself in this for this persecution scattered the believers everywhere and they preached the gospel as they went. The time had now come for this witness-bearing to extend beyond Jerusalem as the Lord had commanded. The Lord permitted

this persecution so as to scatter them. II. Philip Preaching the Gospel in Samaria (vv. 5-8).

Philip was one of the seven so-called deacons. He was not an apostle, nor a minister in the accepted sense of that term, but a layman. He is the only man called an evangelist in the New Testament. He is an example of what a devoted layman can do in preaching the gospel in the evangelization of the world. He went to the city of Samaria and preached Christ, showing that the purpose of God included these despised people. The fact that Philip preached Christ unto these people shows that the true evangelist's message is Jesus Christ, He did not preach Christ as an ethical teacher or an example merely, but Christ as the Savior from sin through the substitutionary offering of Himself on the cross. This is shown by the fact that he preached Christ to the eunuch from the fifty-third chapter of Isaiah. He not only preached Christ as the Savior from the guilt of sin, but from the power of sin as symbolized in baptism, which means not only identification with Christ in His death, but to arise in the power of His resurrection, to walk in newness of life. Then, too, according to verve 12 he preached Christ as a reigning king. Philip's preaching was fruitful, for mutitudes believed his message which was accompanied with numerous miracles. He cast out unclean spirits, healed the paisied and the lame. Great joy accompanied the reception of the gospel by these Sa-

III. Paul an Example of a True Preacher of the Gospel (II Cor. 5:9-20). 1. His supreme aim was to please God (v. 9).

To live or to die was immaterial to him if his service was but acceptable to God. This transcendent aim was strengthened by the consclousness that every one must one day stand before the judgment seat of Christ. This aim explains Paul's de-

2. His consciousness of responsibility (v. 11).

His sense of solemn responsibility was the explanation of Paul's behavior. Some thought that he was mentally unbalanced. His knowledge of God's holy nature and of man's sinful condition moved him earnestly to persuade men to be reconciled to God. No one who knows God's terror will be half-hearted in his ministry.

3. He was constrained by the love of Christ (v. 14). This means that he was governed

by Christ's love. Ministerial devotion is the expression of repicrocal love. Christ's supreme love was expressed in His death for us. Our love in return is expressed in our devotion to Him.

4. Consciousness of the God-wrought change in Him (v. 17).

It was because he was wrought upon by God and was therefore a new creature that he sought to do His will.

5. The content of the gospel which he preached (vv. 18, 19). The reconciliation of God through

the death of Christ was his central message. In the incarnation God was in Christ, reconciling the world unto

6. Paul was an ambassador sent from God to appeal to the world to be reconciled unto God (v. 20).

He was the ambassador from the high court of heaven sent to this rebellious world. In a real sense, every Christian minister is occupying the same position.

Knowing the Lord Every servant knows the past of our

Lord, and many know the future, but what really helps is knowing Him in the present .- Echoes,

Crosses

Crosses are often more comfortable than comforts.-Central Bible Hall Record.

Our Prayers

It is in the closet that we are fitted to be mouthpleces for God.-Echoes

is a combined hunter-sailor-hobo. He has no fixed habitat, but goes where food is most plentiful, coming down with the ice pack of the North when seal, walrus and whale move.

a good catch is anticipated.

Unlike any other animal, the polar bear keeps to the ice and will seek shore only when cut off from open water. It is the best swimmer of the animal world. Loose jointed, ungainly, lessly they come up right under the were unearthed.

silly looking, with a skin that fits badly, the white bear is nevertheless very fleet footed. Often they are not pure white, frequently being killed possessing yellow, brown, and black spots on hips and back. The flanks and legs are covered with hair sometimes twen-

ty inches long. The much sought food of these aquatic animals is the hair seal, and nature has helped them bunt by providing a coat that harmonizes with surrounding landscape. That the bear might not have an unfair advantage in the quest he has a coal black nose, which he cunningly hides, declare Eskimos, when stalking a victim, by placing a

paw over it. The bears often capture seal in the open sea. Detecting a bunch of seal floating on the surface, the bears dive and swim deep under water. Noise-

seal, one of which is sure to be bear

Polar bear pelts are of little value in the North. Only the largest and finest colored ones are commercially valued for rugs and furs, From \$40 to \$75 at Nome, their value increases to \$125 to \$250 in Seattle and New

The Arctic bears are so greasy that even Eskimos refuse to eat the flesh except in extreme hunger. There is no scarcity of white bears in the Frigid zone, because they range an area where men seldom go.

Real Realism

Moscow,-This must be real realism. A brilliant film producer has lost his government job because he was too extravagant with a picture depicting American extravagance.

Find Stone-Age Village

Kuban, Russia .- A large village of the Stone age of prehistoric antiquity has been discovered here. Bones of mastodon and many stone implements