Sunday School Lesson

August 21. Lesson VIII—The Tent of Meeting—Exodus 33. 7-16. Golden Text—The Lord spake unto Moses face to face, as a man speaketh unto his friend—Exodus 33: 11.

ANALYSIS.

I. THE TENT OF MEETING, vs. 7-11.
II. THE PRAYER OF MOSES, vs. 12, 13, 15, 16.
III. THE PROMISE OF GOD, v. 14.

I. THE TENT OF MEETING, vs. 7-11.

It should be remembered that the Israelites were leading a roving life in the desert. If they were to have a sanctuary where they could worship God it must necessarily be a portable one, which could be easily transferred from one place to another. They themselves were living in tents. So they made a specially beautiful tent, the tabernacle, to be a place for worshipping God. It was called the Tent of Meeting. It was a place where the Israelites could meet not merely with one another but, above all, with God. Here they would come with their perplexities and refer them in prayer to God. Further, the Tent of Meeting was set outside the camp of Israel. This separation between the holy tent and the common camp suggested to Israel that however near God comes to his people, he yet remains distinct, awful and holy, v. 7. When Moses, their leader, went out to the holy tent, the me of Israel ceased from all other occupations, stood at their tent-doors and watched him going on his holy mission. Then, as they thought of the great transactions which were taking place between God and Moses in the Tent of Meeting, the spirit of reverence came upon them, and they knelt down in solemn obeisance at their tent-doors, vs. 8, 10. When Moses came to the tent, God also came. His coming was marked by an unusual appearance. The pillar of cloud by which the Israelites were guided during the day descended from the sky, hovered above the tent and then settled before the door. In this way the tent was completely hidden from the view of the Israelites in the camp. In the Old Testament the appearance of God was frequently accompanied with strange signs in nature. Sometimes he showed himself in dazzling light. This suggested that the nature could be revealed to men. At other times, as here, he came with clouds of darkness. This suggested the mystery of God's being, the depths [illegible] of the Godhead beyond [illegible], vs. 9, 10. In this [illegible] God was wont to converse [illegible] as on the basis [illegible] In meeting Moses thus [illegible] favoured him. For [illegible] with those who [illegible] and in [illegible] converse. [illegible] with little of the same [illegible] but [illegible] to be God's personal presence with them on the way. This would be a plain mark that Israel was distinguished from all other nations of the earth, v. 16.

III. THE PROMISE OF GOD, v. 14.

The prayer of Moses reads, in part, like a dialogue between God and Moses. So God interrupted Moses' prayer to assure him that he would go in person with the people of Israel, and that at the end of their desert wanderings he would give them rest in the assured possession of the land of Canaan.

Tracking Criminals With Plaster Casts

Frequently found at the scene of a crime are many bits of evidence, such as footprints, tire-prints, tool-marks, teeth-prints, wheel-tracks, and numerous other material clues.

All of these are perishable, and yet this very evidence will serve to identify the criminal in court, says Mr. J. Kaempfer, in Hygea (Chicago). We read:

The use of casts and molds has been of value in various fields of science to preserve in natural shape and size an object of importance. This process which at the present time is called "moulage" is extremely valuable in criminal investigation. Teeth-marks in an apple can be just as identifying as finger-prints.

If a door has been jimmied in the course of breaking into a building, there will remain along its edges markings produced by the tool employed. Casts of these marks can be made and compared with the suspected tool to determine its identity. Heretofore it was necessary either to saw out the part of the door involved or to remove the entire door for court demonstration. Alphonse Poller, an Austrian, is the creator of this method. His untimely death in 1930 constituted a terrific loss to the world of science.

Gems From Dickens

Recollect! Control yourself, always control yourself!

* * * *

You cheer me up! I'll cheer up you! We'll be as gay as larks . . . and we'll fly as high.

* * * *

It ain't many that comes into a poor place, that deems it worth their while to move their hats. . . but people thinks more of it than people think.

* * * *

That's what I call a self-evident proposition, as the dog's meat man said, when the housemaid told him he warn't a gentleman.

* * * *

I'm easy pleased; it is but little that I wants; but I must have that little of the best, and to the minute as the clock strikes.

* * * *

I remember thinking once, in the days of my childhood, that pickled onions grew on trees, and that every [illegible] was born with an impression [illegible] on his back.

* * * *

[illegible] a good sort of a [illegible] to a single woman [illegible] likely to feel the [illegible] in travel. [illegible] the good [illegible]

Berlin to New York In Twelve Hours

By HEINRICH KLUTH, in Die Woche, Berlin.

Four years ago one of the pioneers of rocket research, Max Valier, predicted that before long the enormous distances between the continents would be covered in a few hours with the rocket, the theoretic foundations of which were already laid at that time, while practical experiments had just begun. Valier believed that the six-hour mail service by rocket between Europe and America would become the slogan of the future.

Valier is dead, martyr of his idea. The experience of a rocket flight was denied to him by fate. But today thousands of research workers and practical engineers the world over study the problem of flying in the stratosphere with the same tenacity that knows no obstacles, the same hope and unabated optimism. The rocket is more alive than ever and is much nearer its realization than Valier imagined.

Just now, however, the ambitions of the rocket adepts are surpassed by the stratosphere plane. During the last few years much attention has been given to the stratosphere. Taking as a point of departure reliable meteorological calculations, scientists have reached the conclusion that far greater speeds than those of ordinary flying could be obtained in the stratosphere. In the experimental laboratories of universities and industrial plants the scientific principles of the stratosphere plane were worked out and tested. Thousands of motor builders now work on models suitable for great altitudes, trying to adapt the dimensions to the new task and increased demands of the rarefied atmosphere.

A preliminary solution of the problem appears to be contained in Dr. Asmus Hansen's graduation thesis, "Development Possibilities of the Stratosphere Motor." Hansen combines scientific knowledge with rich practical experience, acquired as a squadron leader on the front during the world war. His ideas have created a sensation and have so strongly impressed several of the leading German constructors that it was decided to place with the Junker works an order for an experimental plane built according to Hansen's principles.

Rumors that the construction of a new rocket plane was under way have been afloat for some time, although the secret was jealously guarded by the constructors. The new machine is not a rocket plane, however. Its builders do not strive to set up new speed and height records, the purpose being to use the plane for experimental purposes and scientific research. It is the first stage in the evolution of the stratosphere plane, which will be able to fly "above the weather." For the latest ascensions into the stratosphere have established beyond doubt that above the so-called stratosphere the atmosphere is constantly calm, and that there are no clouds and no disturbing atmospheric perturbations and winds, so that the usual risks connected with atmospheric conditions would be entirely eliminated in flying at great altitudes. It would permit constant and perfect navigation, the sun, sky and horizon being visible all the time, because of the [illegible] dispersion of light. Stars [illegible] in the stratosphere in [illegible] which would permit a con[illegible] astronomic orient[illegible] of [illegible] flying inde[illegible] signaling organiza[illegible] on land. Perhaps [illegible] when pas[illegible] stratosphere service [illegible] feel time [illegible] will spend [illegible] nothing [illegible] the fix[illegible]

[illegible] of wealth makes one [illegible] when one has lost those [illegible] spared it.

grees or even lower. The air is so rare that its density does not amount to even one-tenth of the normal. These difficulties may be overcome, as was proved by Piccard, whose balloon, equipped with airtight cabin, ascended ten miles above the earth. Already, before Piccard's experiment took place, certain constructors conceived the idea of equipping the stratosphere plane with an airtight and pressure-existing altitude chamber. The difficulties to be overcome by the stratosphere plane are of course far greater than those encountered by Piccard, for whom one outward grip was sufficient to pull the valve cord and make the balloon descend. In a plane the motor must be operated from inside the air tight cabin, and at the same time all requirements set up by Piccard for heating, airing, visibility, instrumentation, etc., must be complied with.

The altitude chamber built into the experimental stratosphere plane is absolutely airtight and gastight on all sides. There is room for two men only. It has double, gastight walls, with curved surfaces, secured against pressure above atmospheric from inside. The shape of the cabin is fitted to that of the human body, in order to insure perfect visibility. The window panes are double and protected against moisture from inside and ice from outside. The space between the window panes, which is isolated from the intervening space between the cabin walls, can be heated. To reduce the heat requirements of the cabin, the space between the walls is filled with a special gas, which is a very poor conductor of heat, and is maintained under a constant medium pressure, regulated by means of a special device. The steering levers are more or less the same used in ordinary planes, but the pilot is called upon to keep a watchful eye on a great number of scientific instruments, which are mounted on a board of the width of the whole cabin.

It was important to invent a method whereby the pilot would be able to look down on the earth, which is necessary for the determination of the direction when flying at such altitudes. After numerous experiments, it was decided to fix a special telescope between steering levers and pilot seat, so that it rests between the legs of the pilot.

Externally, the stratosphere plane is not very much different from other airplanes, but it is, of course, much larger than the ordinary single-motor machine. The span across the wings is 92 feet, and the length is 52½ feet. The carriage is unusually high, because it must support a propeller of twenty feet in diameter.

For the experimental flights the plane is equipped with an 850-h.p. Junker motor, operating a multiple-stage compressor. This compressor feeds to the motor a constant supply of air of a constant tension, thus eliminating the inconveniences of the rarefied atmosphere. The compression in the cylinders is just sufficient to insure a constant motor capacity in the stratosphere.

Although this plane represents the first practical step on the way toward the solution of the stratosphere problem, inasmuch as it will permit carrying out experiments on a large scale, it is far from being the ideal solution. Its importance lies, above all, in the possibility of testing such features as the compressor and the airtight cabin, without which flying in the stratosphere is absolutely impossible.

It will take some time before a suitable model for mail and passenger service is constructed. It is probable that the service will be limited to the transportation of urgent mail and valuables in the beginning. This would make it possible to acquire the experience without which the security of passengers could not be safeguarded.—Magazine Digest.

Move For the Better

Reporter (of small town paper)—"Your political rival is advertising the [illegible] of his house—he's moving to the [illegible]." Editor—"Have it placed under [illegible] improvements."

What New York Is Wearing

Illustrated Dressmaking Lesson Furnished With Every Pattern

A youthful model that is quite puffed up about its sleeves, uses plain crepe for contrast.

The original model was in a red and white crepe silk print with plain white.

Another darling scheme is flag blue and white crepe silk print with the yokes of self-fabric and the sleeves of plain white crepe.

Style No. 2957 is designed for sizes 14, 16, 18, 20 years, 36, 38 and 40 inches bust. Size 16 requires 2⅝ yards of 39-inch material with 1⅛ yards of 35-inch contrasting.

Batiste prints, voile prints, sheer linen prints, triple sheer and pastel tub silks also smart.

Size 16 requires 2⅝ yards 39-inch, with 1⅛ yards 35-inch contrasting.

HOW TO ORDER PATTERNS.

Write your name and address plainly, giving number and size of such patterns as you want. Enclose 20c in stamps or coin (coin preferred; wrap it carefully) for each number, and address your order to Wilson Pattern Service, 73 West Adelaide St., Toronto.

Irish Expert on Flax Studies Canadian Markets

Ottawa.—Continuing his survey of the flax-growing situation in Canada, Lewis Gray of the Northern Ireland delegation to the Imperial Conference, is now visiting Western Ontario. Mr. Gray has already been in contact with that section of the Dominion Experimental Farms Branch which deals with flax, and he is accompanied on his trip by R. J. Hutchinson, director of the fibre plants department.

Mr. Gray is observing Canadian methods in the pulling of flax, and arrangements have been made for him to deliver an address at Forest, Ont., to the flax-growers of that district.

Some time ago Mr. Gray declared that practically all of the flax used by the linen manufacturers of Northern Ireland was produced in Russia. These industrialists, however, were quite prepared to transfer this business to Canada, provided that sufficient volume and suitable quality of flax was assured from this country.

Sacrifice

Love will pick the lock. Affection will sacrifice itself to bar the door with its own arm. Witness: Mother's affection.

Love

Friendship often ends in Love; but Love, in Friendship—never.—Cotton.

Sowing Wheat

And now the sun bore down on the prairie the whole livelong day. Bright and quivering in the forenoon, he swam through endless seas of blue; across the hazy afternoon he beamed caressingly; toward evening he opened wide his countenance; then the flood of light grew refulgent, only to die in splendour against a mysterious night which also had life.

As the fine weather continued, Per Hansa became more restless, but it only seemed to fill him with greater joy. Suddenly he would be up by the field. Wasn't it dry enough yet? . . . He ought to have had the seeding all done by now; it was high time to begin breaking new ground.

On the 14th of April, the Sommermaalsdag of his old fatherland, Per Hansa began seeding the wheat. Three times that forenoon he had been out to test the ground; the last time he made his great decision: Now we will start!

No sooner had he finished the noon meal than he rushed out, grabbed the seed bag that he had made for this occasion, and carried two sacks of seed up to that portion of the field where the ground was driest. He had paced off the whole field into one-acre lots, and marked each plot. . . .

Again Per Hansa thrust his hand into the bag and his fingers closed on the grain. He felt profoundly that the greatest moment of his life had come. Now he was about to sow wheat on his own ground! His hand tightened in the bag; he was on the point of lifting it out, when something queer happened—the kernels were running out between his fingers! He gave another grab, closing his hand still tighter; again the yellow kernels slipped through his fingers like squirming eels. Then Per Hansa threw back his head and laughed. These fellows aren't very anxious to go into the ground after riches for me! . . .

And now the wheat rained down in yellow semicircles from Per Hansa's hand; as the seed fell, the warm rays of the sun struck full across it, and seemed to wrap it in golden light.—O. E. Rolvaag, in "Giants in the Earth."

Twelve Hours to New York

If the claims of a German inventor can be substantiated, it may be possible before long to fly from London to New York across 3,000 miles of the Atlantic in about twelve hours. The new Junkers plane, upon which engineers have been at work for more than two years, is designed to have a speed of between 300 and 400 miles an hour when six miles above the surface of the earth.

One great problem facing aircraft designers is that the air grows rapidly rarer and thinner for every hundred feet above the surface. In a rare atmosphere it is difficult to obtain high speeds since the propeller has so little grip. That is why in the Schneider Trophy races pilots always fly low.

So confident are the Germans that they have solved this and other problems of great speed at high altitudes that Captain Hamm has already gone to the Berlin works to prepare for a flight from Berlin to New York, which he hopes to accomplish in a little more than twelve hours. At heights such as six miles the air is too rare to support life, and the pilot sits in a hermetically-sealed compartment supplied with oxygen. So great, too, is the cold that his clothes and even the knobs and levers of the machine are warmed by electricity.

OLD FRIENDS

Old friends are the greatest blessing of one's later years. Half a word conveys one's meaning. They have a memory of the same events, and have the same mode of thinking. I have young relations that may grow upon me, for my nature is affectionate, but can they grow old friends?—Walpole.

Bargain

It is not sharp practice and smart bargaining that tell. On the contrary, there is no occupation in which not only fair, but liberal dealing brings greater reward. The best bargain is that good for both parties.

Tit-Bits From Berlin

Paddle Your Own Canoe

Fritz and Frieda may learn to recite "The House that Jack Built" in the house that father built. For in the Berlin suburbs, a "Build-your-own-schoolhouse" movement is proposed. It has grown out of an unusual conditoin that results from the promotion of settlement. Ordinarily, the most congested schools are found in the centers of the cities. But so many families have been moving to little plots of ground in the suburbs that it is the outlying schools that are becoming overcrowded. Hitherto, the school authorities reckoned with one school child to every three families. In the areas to which people are being moved as a part of the plans for relieving unemployment, the "school population" amounts to one child for every family. The Reich's 100,000 marks does not begin to provide funds for the requisite buildings. So the authorities contemplate asking the fathers of the children to contribute their labor to help build the schools. This plan is similar to that under which the unemployed who are placed upon the land aid in building their own little homes.

Learning to Climb

People learn to drive a car and play tennis, they take swimming and fencing lessons. In "Saxon Switzerland" they can learn mountaineering. This interesting mountain range south of Dresden has many towering rock formations which serve as an ideal practicing ground for climbing. Special facilities for training are afforded. The Swiss Mountains—that is the mountains in Switzerland—are one of the most popular goals for summer and winter vacations of the German people. They like them so much that they have called some of their own mountain ranges after them. Saxon Switzerland is one such example. There is even a "Markische Schweiz" near Berlin. It is just hilly country. But the "Switzerland" added to its name gives it a special glamour. Naturally it will not do to compare the height and greatness of the mountains, but one may well speak of the fondness which is shown toward them, for that certainly is very great, no matter whether they are high or low.

Living With The Stars

Boys build gliders, the unemployed erect cottages, and now a workman has built his own observatory wiht telescope and revolving cupola. From early boyhood, Herr Richard Jakob had desired to see the stars more closely. He studied and saved and accumulated a stock of knowledge and a smaller stock of capital. When he had acquired a tiny cottage in Schoenow, a village settlement not far from Berlin, he realized that the time for the fulfillment of his dream had come. So he started out to build a telescope. Screw was added to screw, lever to lever, lens to lens. After four years of painstaking work he had completed his task. He then needed a revolving cupola. With the same untiring effort he set to work to build one. It took him a year. Now it crowns his little cottage and attracts visitors from all directions. School children and professors come to see one of the smallest observatories of the world. His researches have furnished the larger observatories with many interesting data. From Mt. Wilson to the cottage observatory in Schoenow, near Berlin, may be a long distance and a far cry. But the ardor and enthusiasm of the workman-astronomer in front of his self-made telescope certainly cannot be surpassed.

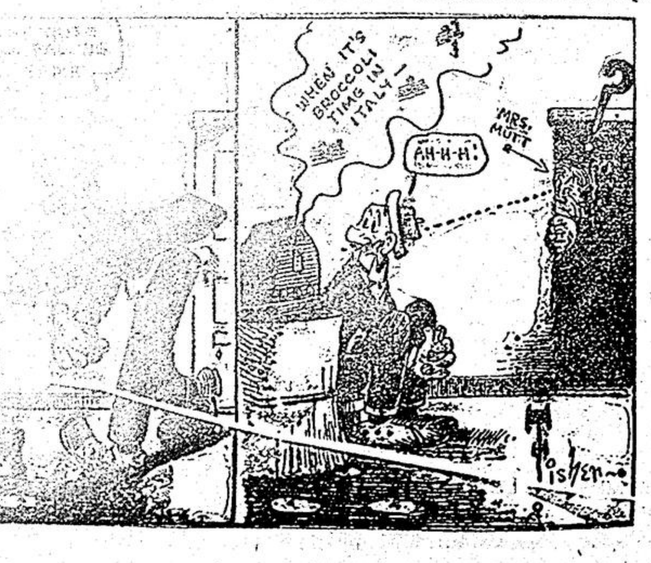
Jobless Turn to Reading

In Freiburg one hardly knows whether or not to regard the forest roads as continuation of the university campus. For erudite conversations are often heard out in the open, perhaps in reaction to the regulation that complete silence must be maintained in the state-owned university library. During the last year 86,000 books were loaned to the student body. The public library on the Munsterplatz, with its 30,000 volumes and 189 newspapers, also loaned 86,000 items. Many retired citizens make use of its utilities. At the present time half the readers consist of unemployed.

Rails Across the Rhine

One may float down the Rhine to enjoy the scenery—to contemplate the beauties of ancient castles—and to study bridge constructions. For the Rhine presents almost a complete museum of types of bridges of the last 100 years. There are twenty-four bridges of the Federal Railways across the famous West German River. This means that every 15.5 miles in its 435-mile course through Germany, the Rhine ducks under a railroad bridge. There are combination rail and automobile bridges. There are parallel girders and semiparallel girders. There are arches and in some instances very bold bridge constructions. There are also bridges which do not serve for railway purposes. The population of Cologne, for instance, is enormously proud of its new suspension bridge which resembles a miniature Brooklyn Bridge.

Riches

Love is life. He who has love is truly rich; he who hath none is poor indeed. Life with love is eternal.—Krishna.

The End of a Beautiful Friendship.