

now, of course, not of birds which fly by flapping their wings, but of those which fly without flapping their wings, or very rarely, and with almost no visible expenditure of force.

"There is a good deal of misapprehension about my own investigations in this respect," Secretary Langley went on, "but what I have at least demonstrated is that heavy machines, not balloons, can be made which will produce enough mechanical power to support themselves in the air, and to fly, though this is not saying that we have yet got the skill to manage this power so as to rise, advance and descend safely. What is actually demonstrated rests on actual experiments, repeated hundreds of times in the laboratory, but under conditions not so easily repeated in the open air.

"These experiments are in the nature of an engineer's measurements, giving things in pounds, feet and horse power, and by them I have shown that an expenditure of one horse power (if we can only regulate it so as to make the flight horizontal) will support about 200 pounds, and at the same time carry it at the rate of fifty miles an hour through the air.

"Now, there have recently been built steam engines which with fuel and water for a short flight, will give a good deal more than a horse power and weigh a good deal less than twenty pounds, so that we have a very large margin.

"What I am trying to do is to establish by direct experiment the underlying principles of this future art of science, and, having found the exact amount of force required, if possible, to learn next how it is to be exerted, directed and controlled.

"I know it is dangerous for any one to make any statement except in positive facts and figures about such matters. The people have, ever since the days of Darius Green and his flying machine, until very lately, put such a one down as a visionary, without investigation of what he has to offer. As for me, I have never said that man could fly by his own strength, nor have I ever published the details of any flying machine, but what I have not only discovered, but demonstrated by actual experiment, is, that there is no doubt that machines can be made powerful enough to support bodies in the air which are thousands of times heavier than the air itself. People who ask, if this is so, why such machines are not made at once to actually fly with the human freight, since we have now got mechanical power, may be reminded that though they themselves have got plenty of strength to ride a bicycle or to skate, this, though essential, is not enough till they have added the special skill and experience to use it, just as every man's legs are strong enough to ride a bicycle, while yet most of us cannot do so without much painful experience in learning how to use and manipulate our strength, as many nowadays find out. So it is with artificial flight. We have got the mechanical power now, but we have still got to acquire the skill to use it in this new field."

"But will that day ever come, Mr. Langley?" I asked.

"As to that" replied Secretary Langley, "I have so far spoken only of what I have ascertained to be fact, and want to distinguish between, what I

fact and what is only my opinion. Expressing only my personal opinion, then, I am willing to answer that I believe it altogether probable that in the not very distant future, but how far distant I do not pretend to say, flying machines, that is, not balloons, but heavy constructions actuated by machinery, will be propelled very rapidly through the air, probably at first rarely and at great risk in furtherance of the arts of war; later in introducing a great change in all human affairs in the arts of peace."

Frank G. Carpenter

CONFERENCES IN SAMOA.

The semi-annual conference for the Saints on the island of Savaii was held at Saleaula, October 12th and 13th 1895. The Elders in attendance from Zion were: John W. Beck, president of the Samoan mission; James B. Barton, Jos. A. Rasband, Lewis B. Burnham, Wm. G. Sears, James C. Knudsen, Wm. P. Silver, Stephen M. Walker, Christian Jensen Jr., Wm. A. Moody and George S. Burnham. A few Saints from Fogatuli, Salelavalu and Tuasivi were also present, whose number in connection with the Saleaula Saints and non members rendered the aggregate about ninety souls.

On the 12th, one meeting and a Sabbath school review were held and a program consisting of instrumental music, songs, select readings and recitations was well carried out in the evening. Five meetings were held on the 13th, one of them being a missionary session where the Elders received instruction and appointments from Elder John W. Beck, and also expressed their feelings regarding their labors. Brother Lewis P. Burnham retains the position of presiding Elder on Savaii, to labor at Salelavalu with Elder Wm. A. Moody as assistant; Brother Christian Jensen Jr., continues to be presiding Elder at Saleaula, with Elder James C. Knudsen as assistant; Elder Wm. P. Silver will take charge of Fogatuli district, and be assisted by Elder George S. Burnham; while Elder Stephen M. Walker will labor at Sataua and endeavor to organize a branch. Opapo, a native Elder, was appointed to labor (under the supervision of Elder Lewis P. Burnham who is stationed near by) at Siulaga, a new district, where a few have just received the Gospel.

During conference the usual advice and encouragement were given to the people, the names of general and local officers of the Church presented and sustained without a dissenting vote, the Gospel explained, and sincere testimonies borne by the Elders. Nothing disturbed the peace and quietness of the occasion and everything passed off pleasingly. Eight of the Saints were ordained to different offices in the Priesthood, and on the morning of the 14th of October seven others were baptized and confirmed members of the Church.

The reports given of the different branches for the past six months, showed that much preaching had been done with but fair success, owing to the barriers of Samoan laws and customs. A united appeal is constantly ascending that our Heavenly Father will speedily remove this obstacle and hasten the day when all the righteous may have the

opportunity of embracing the fulness of the Gospel.

That we are gaining prestige among this people was manifested on the afternoon of the 14th when the people of Sa'aula belonging to the different denominations brought us food in abundance. Our Saints too, had, on the 12th presented to us two hundred and thirty-one talo, eight pigs, six chickens, forty-eight bunches of fish and twenty-two bunches of bananas, so we were well supplied with temporal as well as spiritual food. Following both the presentations the natives gave their dances which were gracefully executed. Early on the morning of October 15th, Elders and Saints separated and started for their several places of abode.

The semi-annual conference for the Upolu Saints was appointed to be held at Saleaumuua on October 19th and 20th 1895, but with the exception of a few members from the Lepa district none of the Saints came. The following Elders from Zion were in attendance: John W. Beck, president of the Samoan mission, James B. Barton, Joseph A. Rasband, William G. Sears, Silas Hutchings, Alex. A. Lemon Jr., Duncan Kippen, Jabez W. Dangerfield, William Jeppson and Joseph Quinney Jr.

A new bamboo meeting house, eighteen by forty feet, floored, nicely painted, and covered with corrugated sheet-iron roofing, has just been erected mainly by Elders James B. Barton, Alex. A. Lemon Jr., Silas Hutchings, William Jeppson, Joseph Quinney Jr. and Brother Ilopo. It eclipses all our other houses of worship here and reflects great credit upon the builders. Brother John H. Rosenquist has also assisted liberally with his means and Brother Ilopo donated the land—a beautiful spot on a prominent knoll between two large villages. Owing to the work on the building our first meeting was held on the morning of the 20th, when the house was dedicated to the Lord by Elder John W. Beck, and about sixty natives were instructed pertaining to life and salvation. In the afternoon a like number assembled and at seven p. m. the house was packed to overflowing, upwards of one hundred being unable to gain admittance. Another large meeting was held at 2 p. m., October 21st, which brought the conference to a close. Then the natives gave their dances while seated on mats outside, and we carried out an impromptu program with a select crowd indoors. We formed a pleasing acquaintance with several half-castes and natives of this part of the country which contributed largely in making our gathering an enjoyable one.

This is a new field and bids fair to become one of the best in the mission. Elders Alex. A. Lemon and Wm. Jeppson have been appointed to labor here and will soon commence school, for which there has already been numerous applications. The other appointments are: Elders Silas Hutchings and Joseph Quinney Jr., at Lepa; Elders James B. Barton, Jabez W. Dangerfield and Saleaula at Siomu; Elders Joseph A. Rasband and William W. Winegar at Salovi, and Elders John W. Beck, Duncan Kippen and William G. Sears at Fagail.

Our advices from Tutuila regarding their gathering have not yet reached us but we have reason to believe that Elders Orlando Barrus, Charles A. Alleman, Alfred Jensen, Henry L. Horne, Foster Cluff and Abinadi Olsen