

FLYING OVER AFRICA



Workmen's Huts in the Belgian Congo.

(Prepared by the National Geographic Society, Washington, D. C.)

FLYING over the sands of the Sahara Desert, the jungles of wild Africa, and the lake country of East Africa, French aviators recently crossed the continent at its widest part in a seaplane. Taking the air near Marseille, the two French navy planes skirted the Spanish west coast of Africa, landing at Dakar, the westernmost city of the "Dark Continent."

They found Dakar, port of call of vessels plying between European, South African and South American ports, a thriving city of about 25,000 people, with well laid-out streets, schools, hospitals and workshops. Dakar owes its importance as a port to the nearness to South America. While Liverpool is more than 3,000 miles from New York, Dakar is only slightly more than half that distance from Pernambuco, Brazil, the easternmost port of South America. When trade between the two southern continents develops, Dakar may rival some of the larger European ports in volume of commerce. Dakar is also the seat of administration for all French possessions in West Africa.

The Berbers and Fulas represented in the city's population were met with at every stop in the Sudan and Nigeria after the flyers turned inland, for both races are scattered over the north and northwest portion of Africa. The Berbers are believed to have been at one time masters of the Mediterranean, and it is probable that the continent was named for the Afrigha tribe, a sub-tribe of the Berbers. Evidence has been uncovered dating back to the Stone Age, of the existence of a race of people resembling the Berbers who inhabited North Africa.

Unlike other African peoples, some of the Berbers might pass for Americans, if they donned American clothing. Their skin is light, their eyes blue, and many are blonds. Although the Berbers and Arabs have been closely associated for centuries, and are Mohammedans, the two races have remained distinct.

Fulas Are Strong.

The Fulas were originally herdsmen in the western and central Sudan, but they extended their domain to Nigeria. That they are a mixture of Berber and negro is the most generally accepted theory, yet their reddish brown or light chestnut colored skin, oval faces, even smooth hair, straight even noses and delicately shaped lips differentiate them from the negro type.

Taken as a whole the Fulas are intelligent people with great strength of character. They are famous for their horsemanship and as soldiers are mostly cavalrymen.

At Bamako, on the Niger river, one of the planes became disabled and was left for repairs. The other plane followed the Niger to Timbuktu, so-called "city of mystery" which lies nine miles from the river proper, on the edge of the Sahara. This was one of the most interesting stopping places on the flight.

Whether Timbuktu is entered from the south by the "water" route or the bridge paths from the north or west, the city seems nothing more than a labyrinth of narrow streets with mud walls thrown up on both sides without any sense of direction. Regardless of what street one takes, after a few right and left turns, he finds himself in the famous market place.

Timbuktu was founded as a trading center in the Eleventh century and has never lost that characteristic. Of the 8,000 inhabitants many are nomads who pass through with cattle or engage in the great salt trade from the central Sahara. The "home-folks" lead simple, fairly cheerful, but uneventful lives.

Timbuktu has an annual thrill, lasting several days. Once a year a salt caravan comes to town. The arrival is a pompous affair. Sometimes the caravans consist of 800 camels laden with salt, and hundreds of others ridden by gorgeously robed "sheiks" with their bodyguards. When the cargo of salt has been deposited, the festivities are over, and the caravan turns north with rice and grain brought up from the agricultural regions of the south.

Up the Niger and Benue.

From Timbuktu, the planes followed the Niger to Lokoja, Nigeria, at the confluence of the Niger and Benue rivers in British territory. Lokoja is the oldest white settlement in the interior of Nigeria and was once the

seat of administration for the inland provinces. At the meeting place of two great rivers, it was, too, the doorway to the north. Something of this function still survives, but the completion of a railway in recent years, running from Lagos on the coast to the relatively healthy uplands of northern Nigeria, and passing far west of Lokoja, has decreased the importance of the latter town. Lokoja is damp, hot and unhealthy. The white population is small and mostly men.

From Lokoja the aviators flew up the Benue river and into French equatorial Africa, in the heart of which lay another stopping place, Archambault. There the flyers had passed from Mohammedan territory into a region of fetishism. A sect of this primitive people has some unusual features. Its members spurn clothes, wearing only a thin strip of cloth and a head belt. Ochre clay is daubed over their bodies, and they adorn themselves with glass-bead necklaces, metal bracelets, and ostrich-feather head-dresses. Each member always carries a small stool, and much of his time is spent seated on it in solemn dignity. Their secret communications are through prolonged guttural coughs.

Turning southward on leaving Fort Archambault, the flyers again left French territory at the Ubangi river and entered the Belgian Congo. This huge Belgian possession is more than 77 times the size of Belgium. On their way to Stanleyville, metropolis of the Congo, the aviators flew over vast forests. One, the so-called Pygmy forest, covers 25,000 square miles. Seldom is the ground in this whole area touched by the rays of the tropical sun, for the underbrush and the foliage of the giant trees are so thick that only here and there a pencil-like stream of light pierces the darkness beneath. The jungle seethes with vicious animals and insects, and the Pygmies, who seldom grow more than four feet in height, are the principal inhabitants of this wooded fastness. But they are much like the jungle monkey. They have no fixed abodes, hop from limb to limb with ease, and feed upon tender roots, elephant meat, rats and white ants.

The Belgian Congo.

About 10,000 of the 9,000,000 people in the Belgian Congo are white. Most of them live at the numerous stations established throughout the colony by the Belgian government. The natives are black and include many different types according to their geographic location. Some of them manufacture cloth from vegetable fiber and use homemade dyes of yellow, black, red and brown to color it. When they are not being chased by hostile neighbors, they grow bananas, rice, sorghum, millet and tobacco.

The resources of the colony have hardly been scratched. Gold, tin, copper, lead, rubber, palm nuts, palm oil, and iron are important exports. Ironstone hills in the southeastern regions have an estimated deposit of millions of tons of high-grade ore. The rubber supply seems inexhaustible.

At Stanleyville the aviators found a busy little town, built on both sides of the Congo river. On the east bank is the headquarters of the vice governor and many up-to-date residences, while the left bank is occupied by railway terminals and workshops. Palm trees lining the avenues in the residential section remind one of a southern Florida boulevard. All this modernization has come about since the eighties when Stanleyville was little more than a native village.

Flying in a southeasterly direction, the plane reached the African Great Lakes, passed over its second stretch of British territory, and came to the Indian ocean at Killimane, a small town about midway along the coast of Mozambique, Portuguese territory. The city of Mozambique, the next stop, is situated on a small island about three miles off the coast. It was once the headquarters of the Portuguese East African government and the center of the East African slave trade. The slave markets have disappeared, yet Mozambique has changed little during the last few hundred years.

Majunga, largest port on the west coast of Madagascar, required a long hop across the Mozambique channel. From this point the aviators flew to Antananarivo, capital of the third largest of the world's islands (outside the Arctic regions), thus ending the first half of their trip.

POULTRY

CHICKENS DON'T WATCH A CLOCK

Chickens do not watch the clock. The "best workers" in the flock start scratching as soon as it is light in the morning and continue until it is dark.

Many poultrymen are taking advantage of this natural tendency for activity by using artificial light to lengthen the working day of the farm flock during the winter months. The result is a larger production of eggs, provided the extra light is furnished for good hens which are properly fed and cared for.

"The biggest advantage of this system," says J. G. Halpin, poultry specialist at the Wisconsin College of Agriculture, "is that it stimulates the mature hens to lay, and hastens the development of late and immature pullets so they lay more eggs during the winter months." However, he believes that proper feed and good care will be of greater value to well-developed pullets than will the extra hours of light.

"Forcing the mature hens into early winter laying may result in reduced hatchability of the eggs during the hatching season. This is due more to the difficulty of supplying the flock with a complete ration that supplies all of their requirements in proper proportions, than to the mere fact that the hens are laying," he explains. "One of the most difficult things to supply under our conditions is sufficient vitamin D to make it possible for the hens to lay during the winter without robbing their bodies. If these materials could be supplied in sufficient quantities, the hatchability of the eggs would not be seriously lowered."

The poultrymen who have used electric lights usually turn them on between four and five o'clock in the morning, although some use the light in the evening, at which time they give a heavy feed. An alarm clock may be used to throw on the switch automatically. If the chickens are to be aroused at these hours, the light should be distributed so as to cover the floor and shine on all of the roosts.

Feed Flocks Effectively to Get Greatest Profit

The greatest profits from the sale of eggs at any one season of the year may be obtained during the winter months. Eggs are high in price at this season of the year because few poultrymen are obtaining eggs. Eggs are low in price during the "flush season" in the spring, because they are plentiful. The cost of feeding varies slightly from winter to spring. That is, during the winter you have a greater difference between the cost of producing eggs and the price obtained from the eggs. As the price of eggs drops in the spring and the cost of feed remains practically the same we have less opportunity for making a profit. Since the cost of feed represents more than 60 per cent of the cost of producing eggs on the farm we must aim to feed our flocks as effectively as possible.

Poultry Notes

Sunlight is a better egg producer than red pepper.

A pullet, properly handled and fed, should gain in weight even though laying regularly.

If you have neglected to get a new cockerel, then order a setting or two of high grade eggs now, and raise your own cockerels for new blood next year.

A cheap treatment for mites, and a fairly good one, is to paint the hen house inside, walls, roosts and all, with a mixture of old crank-case oil and kerosene.

The market seems to be wanting bigger broilers lately—birds weighing between two and three pounds. Evidently, city folks are demanding meatier bones to pick.

Keep plenty of green feed for the pullets; it is essential for both health and egg production.

A broody hen, if taken the first day she is broody, will come back to production in three days if she is put in a cool, slatted coop and fed liberally with mash and milk.

Outbreaks of coccidiosis (bloody diarrhea) which is fatal to a great many chickens every spring, may be largely eliminated by plowing up the ground in the chick yard.

Pullets lay best when confined to the poultry house during the winter months and fed a laying mash.

In feeding poultry the heavy grain feed should come at the evening meal. The birds should have all the grain they will clean up at this time.

Duck eggs hatch in twenty-eight days. When the hatching is done by hens it is well to keep the hen covered until she may be introduced to her children. Otherwise she may peck them to death.

DAIRY FACTS

SOY BEANS GOOD FOR DAIRY COWS

The recent increase in acreage of soy beans throughout the corn belt territory brings up the question as to whether soy beans or soy bean oil meal can be profitably used as a substitute for other protein feeds. It is a commonly recognized fact that the chief problem in feeding the dairy cow is to find a satisfactory protein supplement for the grains which are raised on the farm.

Considerable experimental data has been collected on this subject by different experiment stations. In a feeding test with dairy cows at the Ohio station they found that linseed meal was slightly superior to ground soy beans when fed in equal amounts as a supplement. This finding does not agree with the results at some other stations. At the Iowa station the amount of milk was decreased but the amount of butterfat was slightly increased by using ground soy beans as compared to linseed meal. The South Dakota station found a slight increase in milk but no increase in the amount of fat with soy beans. The Indiana station increased both the milk and the fat by using ground soy beans. The Kansas station found that the use of a large amount of ground soy beans tended to produce soft butterfat.

From these results we may conclude that ground soy beans are equal to linseed meal in the ordinary dairy ration. It is unwise to use them in excess on account of the danger of producing soft butter. In the Ohio experiments the ration fed consisted of equal parts of ground corn, ground oats and ground soy beans for the grain. This grain mixture was fed in the following proportions: One pound of grain, one pound hay and three pounds silage.

Tests with soy bean oil meal have produced similar results to those with ground soy beans. At the Ohio station the soy bean oil meal produced slightly better results in both milk and butterfat production than an equal amount of linseed meal. The Indiana station found that there was no practical difference between the two feeds in balancing up the dairy ration.

The results of these different tests would indicate that Iowa farmers can grow more of their supplements for dairy rations than they have been doing in the past. Soy beans are one legume that can be raised on soil that is slightly acid. They make a good substitute where other legumes have been a failure. Many people are raising them instead of oats on account of their beneficial effect on the soil and the fact that they are as good, if not better, money crop.

Milking Machine Saves Owner Time and Expense

Recent investigations by the farm mechanics department of the college of agriculture, University of Illinois, have shown that even in a small dairy herd of ten to twelve cows, considerable time and labor can be saved by using a milking machine.

On one farm it was customary for the hired man to come in from the field an hour early in the evening to help milk. With the aid of an electrically operated two-unit milking machine the farmer now does all the milking himself and does it in about one-half the time, according to F. C. Kingsley of the department. It requires about 15 minutes a day to keep the milker clean. Some trouble was experienced last summer in the milk souring. The cause was traced back to improper cleaning of the milker, and as soon as this fault was corrected no further trouble occurred.

The steps to take in keeping a milking machine clean, are: After each milking rinse the milker units in cold water. Wash them thoroughly in hot water, using brushes provided for this purpose. Washing powders are often used to help clean the parts, but good results have been obtained without using a powder. Then scald all the parts with which milk has come in contact or sterilize all parts in a steam bath. Wash out vacuum pipe and the sanitary trap at least once a week.

Milk Ration for Calf

The milk ration for the calves can be gradually increased until they are taking a total of eight quarts daily. The use of more milk than this will generally give poorer results than the limited feeding. Some people report good success by feeding a gruel to the calves after they are put on skim milk. This gruel is made of equal parts of corn meal and linseed meal boiled together. Others feed corn meal, ground oats and linseed meal.

Raising Dairy Calf

Calves that are properly grown and developed will make the most profitable cows. A large amount of care should be given to the calf throughout its entire development, but more especially during the period after it is first dropped. A large percentage of the losses comes during the first few weeks. If the mother of a calf is healthy there is no better method of feeding the calf for the first 48 hours than by leaving the calf with the mother.

Improved Uniform International Sunday School Lesson

(By REV. P. B. FITZWATER, D.D., Dean of the Evening School, Moody Bible Institute of Chicago.)
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Lesson for February 27

MAKING THE COMMUNITY CHRISTIAN

Temperance Lesson.

LESSON TEXT—Gal. 5:13-25.
GOLDEN TEXT—Have no fellowship with the unfruitful works of darkness, but rather reprove them.
PRIMARY TOPIC—Serving One Another by Love.
JUNIOR TOPIC—The Law of Love.
INTERMEDIATE AND SENIOR TOPIC—Self-Control for the Sake of Others.
YOUNG PEOPLE AND ADULT TOPIC—Works of Darkness and Works of Light.

The only way this can be called a way of making the world Christian is by leading the individuals to a personal knowledge and experience of Jesus Christ and entering therefore into the power of the new life. Having shown in chapters 3 and 4 of this epistle that the believer is free from the law as a means of justification, Paul makes practical application of this doctrine. The divine way of making the community Christian is to secure the regeneration of the individual. The way to destroy the work of the devil is through the sonship of believers.

I. Christian Freedom (vv. 13-15).
1. It is not an occasion to the "flesh" (v. 13).
Liberty is not license. The notion that when one is free from the law, that he is free from constraint, is wickedly erroneous. License of the flesh means not merely the indulgence of the flesh in actual material sins, but in the expression of a self-centered life in biting and devouring one another (v. 15).

2. By love serving one another (v. 13).
Freedom from the Mosaic law means slavery to the law of love. The emerging from bondage through Christ is the passing into a sphere of life in which all the powers should act under the dominion of the true motive, love—Morgan. Love thus becomes the fulfillment of the law.

II. Walking in the Spirit (vv. 16-18).
This discloses the secret of how a life of service to another can be lived. The governing principle in the life of a believer is the Holy Spirit. Walking in the Spirit results in:

1. Loving service to others.
2. Victory over the flesh (vv. 16, 17).
By the flesh is meant the corrupt nature of man expressing itself in the realm of sense and self. The renewed man is two men between which is going on a mortal conflict. The Christian must choose between good and evil. When he chooses the evil, the Holy Spirit opposes, and when he chooses the good the flesh opposes. Notwithstanding this deadly conflict, victory is sure.

III. The Works of the Flesh (vv. 19-21).
By works of the flesh is meant the operation of the carnal nature. The one who chooses to live according to the impulse and desires of his natural heart will be practicing the following sins:

1. Sensuality (v. 19).
2. Irreligion (v. 20).
These acts take place in the realm of the spirit and are:
(1) Idolatry, which means the worshiping of idols.
(2) Witchcraft or sorcery. This means all dealing with the occult.
(3) Sins of temper (vv. 20, 21).
These take place in the sphere of the mind and are:
(1) Hatred, (2) Variance, which means strife and contention. (3) Emulations, jealousy. (4) Wrath, bursts of passion. (5) Seditions, factions in the state. (6) Heresies, factions in the church. (7) Envyings. (8) Murders.
4. Sins of excess (v. 21).
(1) Drunkenness. This means indulgence in intoxicating liquors.
(2) Revelings, acts of dissipation under the influence of intoxicants. Those who practice such sins shall be excluded from the kingdom of God.

IV. The Fruit of the Spirit (vv. 22-24).
This indicates action in the realm of life. The product of the Holy Spirit indwelling the believer.
(1) Love to God and man. (2) Joy, glad-heartedness because of what God has done. (3) Peace with God and fellowman. (4) Long-suffering, taking insult and injury without murmuring. (5) Gentleness, kindness to others. (6) Goodness, doing good to others. (7) Faith, believes God and commits all to Him. (8) Meekness, submission to God. (9) Temperance, self-control in all things. Against such there is no law.

Underrating Value
Oh, do we not too frequently underrate the value of the promises of God? They were made to us and we should trust them, for they are as true as the God by Whom they were made.—Echoes.

Exceedingly Difficult
It is exceedingly difficult for one's heart to bow and say, "I will be nothing but a lamb," but that is our place, for the Lord says, "Vengeance is mine."—Echoes.



CONSOLATION

"Well, Mrs. Johnson," a colored physician announced, after taking her husband's temperature. "Ah has knocked de fever outen him."
"Sho' nuff," was the excited reply. "Am he gwine get well, den?"
"No'm," answered the doctor. "Deys no hope fo' him, but you has de satisfaction ob knowin' dat he died cured."
—American Legion Weekly.

NOT TO SPEAK OF LAW



Oriental—What prevents you Americans from having more than one wife?
American—Common sense, as a rule.

His Luck
The lucky husband is the one whose wife the chance has had to see the men she "might have wed" All turn out pretty bad.

In Doubt
The automobilist had called at the filling station and had his tires filled with air and his radiator with water. "Gee," he remarked cheerfully, "I don't see how you fellows make any money with so many of these places." The polite attendant grimly remarked that he wondered sometimes himself.

Not in a Hurry to Land
"Dey say you kin go so high in dese balloons you kin hear de angels sing." "Well, why don't you go up in one?" "Not whilst dar's singin' gwine on up dar. De only way I'll ever git to glory is w'en everything's quiet—w'en I kin creep in an' hide out, fo' dey has a chance ter ax sarchin' questions!"

Not Presbyterian
Globe Trotter—I'll have to give it to your race, Mr. Goldstein. In every land I have visited I have found Hebrews with the exception of Alaska. Mr. Goldstein—Alaska? Well, I don't know, but Iebeg ain't no Presbyterian name, y' know.—Capper's Weekly.

A High Price
Sweet Young Thing—What would you not pay to be as young as I am?
Crusty Bachelor—I would even pay the penalty of being as foolish.

NOT A PAIL



Reggie—Aw—er—am I a little pale, Miss Sharpe?
Miss S.—No—you're not even a pint cup!

Was Also a Nut
Don't worry if your job is small And your rewards are few; Remember that the mighty oak Was once a nut like you.

That Was a Crime
"What was he arrested for?"
"Well, you see, he choked his engine."
"Hub! You can't be arrested for choking an engine, can you?"
"No, but you can be for using that kind of language in a public place."

Covetous
"My wife never knows what she wants."
"Mine does; it is anything our neighbors have that we can't afford."

His End
Doctor—Every man should have a fad; it's a mental safety valve. Better cultivate one.
Patient—I already have one.
Doctor—What is it?
Patient—Collecting unpaid bills. Perhaps you will add one, doctor.

Not Exclusive
Betty (aged seven)—Our family is awfully exclusive, is yours?
Bessie (aged eight)—No, indeed. We haven't anything to be ashamed of.