

## Sir FRANCIS KENNEDY McCLEAN, A.F.C.

*Honorary Fellow*

(1876-1955)

ONE OF THE duties of the *Journal of the Royal Aeronautical Society* is to place on record some account of the activities of its members. It is a duty which has been too much neglected, especially in respect of its pioneers.

In 1919, Major B. F. S. Baden-Powell, an aviation pioneer if ever there was one, a member of the Society at that time for forty years, its past Honorary Secretary, a past President, and the founder of the *Journal*, was required to obtain the signatures of ten Fellows of the Society, to become an Honorary Fellow!

Frank McClean was one who signed his form, and wrote:

“The old order changeth and the new forget the foundation of aviation on which their success rests. Most of those who now rule the air and make speeches have probably never heard of you and me.”

That was less than 16 years after the first heavier than air flight. Now, fifty years after, one may still “hope a great man’s memory may outlive his life half a year,” in these records.

Born on 1st February 1876, Frank McClean was trained as a Civil Engineer, at Cooper’s Hill. From 1898 to 1902 he served in the Public Works Department in India. In 1907 he had his first air experience, in a balloon, and was assistant to Griffith Brewer in 1908 in the Gordon Bennett balloon race, and was a pilot in the same race in 1909. He held Balloon Pilot’s certificate No. 11.

In December 1908 he made his first aeroplane flight, as a passenger with Wilbur Wright in France, and the following month ordered an aeroplane to be built for himself by Short Brothers, the first of a considerable number of machines to his order. His pilot’s certificate is numbered 21.

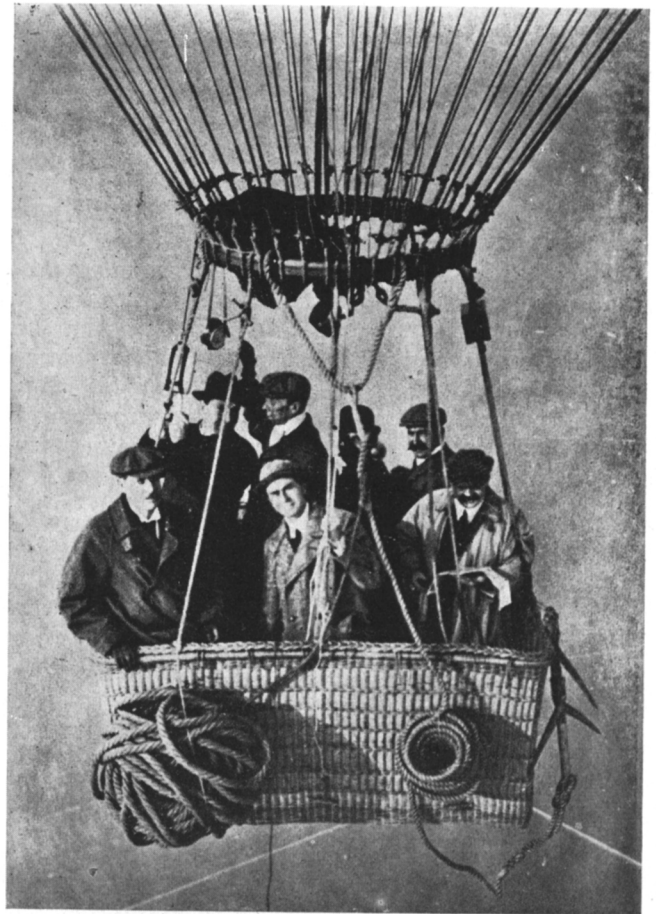
Much of his early flying was done at Eastchurch, where he had bought the land for an aerodrome, land he afterwards let at a nominal rent to the Royal Aero Club. In 1911 he offered to train, and provide the machines for, naval officers for the Admiralty, an offer which was accepted. A similar one, made to the War Office to train Territorial officers, was declined the following year on the grounds that it was not considered advisable for Territorials to learn flying!

McClean proved to be a skilful pilot and able to impart much of his skill to others in those pioneering days. In 1912 he showed some of that skill by flying up the Thames in a seaplane, passing between the upper and lower parts of the Tower Bridge, and under London Bridge, clear of the water. His remarkable flight up the

Nile in 1914, on his 160 h.p. Gnome Short Pusher seaplane, with, at times, five up, is retold overleaf by Alec Ogilvie, who accompanied him.

With the outbreak of war McClean joined the Royal Naval Air Service which he had done so much to start, served for a time on the Channel Patrol and afterwards as Chief Instructor at Eastchurch.

An active member of the Royal Aero Club, of which he was Chairman in the years 1923-24 and 1941-43, and Vice-President in 1923, he was awarded its Gold Medal in 1923. His name is one of those 13 pioneers recorded



Photograph of seven aeronauts in a balloon car as published in *The Field* 21st November 1908. Occupants, *left to right*, Pollock, McClean, Dunville, Brewer, Hunt, Lockyer and Bidder.

NOTE.—This photograph was taken by the automatic camera hanging from the net of the balloon. The dark line hanging centrally from the basket is the duplex flex which hangs in a loop up to the camera so that the shutter can be operated by a switch in the balloon.

on the Memorial erected and unveiled this year on the Isle of Sheppey, as the first centre of heavier-than-air flying in England. He was elected an Honorary Fellow of the Society in 1950.

He died on 11th August 1955.

Frank McClean was a man of very wide interests. He gained, in astronomy, almost as much fame as he won in aviation. He was a joint founder of the Norman Lockyer Observatory, and gave generously towards its

equipment. He organised two eclipse of the sun expeditions, one to Flint Island in 1908 and the other to Port Davey in 1911. He was High Sheriff of Oxfordshire in 1932-33 and was knighted in 1926 for his services to aviation.

A very friendly and sociable person, he had a very wide circle of friends, both in the air world and the world of outer space. To him British aviation owes much by precept and example.—J.L.P.

*(We are fortunate to be able to print the following account, by Lieut.-Colonel Alec Ogilvie, C.B.E., F.R.Ae.S., of the famous and inspiring trip up the Nile in 1914 in appreciation of a great British pioneer. The Society has been greatly honoured by Colonel Ogilvie by the presentation of the maps used on this historic flight.—Ed.)*

#### LIEUT.-COLONEL OGILVIE WRITES :

The last letter, dated 16th October 1954, which I received from Frank McClean started as follows:

"My dear Alec,

Thanks for your kind wishes for my health, but in view of the fact that for nearly 80 years I have survived the strain of finding enjoyment in this world and have very few stones unturned in the process, I can't complain."

This seems to me to express very well Frank McClean's point of view. He enjoyed life and took what was coming to him without complaint. As I really only saw a lot of him in a relatively short space of his life between the ages of 32 and 38, I daresay that he turned many stones, about which I know nothing, but I have seen him as the genial host of a children's party at his family home, Rusthall in Tunbridge Wells, as a balloonist, as a pilot of many experimental aeroplanes, as a wise Club Committee man in the early days when nearly every problem was a new one, but chiefly as the stout-hearted leader of a long trip up the

Nile in which I shared and during which the stones were sometimes heavy and sharp.

He was a wealthy man for those days and he was prepared to spend his money freely in getting to the bottom of things which interested him and in which he could see benefit to the country. His magnificent offer of providing aeroplanes for the Royal Navy, on which to learn to fly, as well as the aerodrome to fly from, was typical. The long series of his aeroplanes and sea-planes, a dozen or so, built for him by Horace Short, enabled Short Brothers to get going, and keep going, at a critical period when Aviation in this country was staggering about apparently miles behind other countries in Europe. It is impossible to deny that McClean and Short did a very great deal to overcome the inertia in official circles and among the general public.

McClean had first asked Commander Samson, R.N., to come with him on this 1914 Nile trip but he could not go, so Frank asked me.

As it turned out, McClean would have done better to have taken a really experienced Gnome Engineer, who would have been able to see what was our basic engine trouble, which was overheating. McClean would have avoided a vast amount of trouble and expense, but that was not his way. He wanted his friends with him in his adventures and was prepared to put up with difficulties.

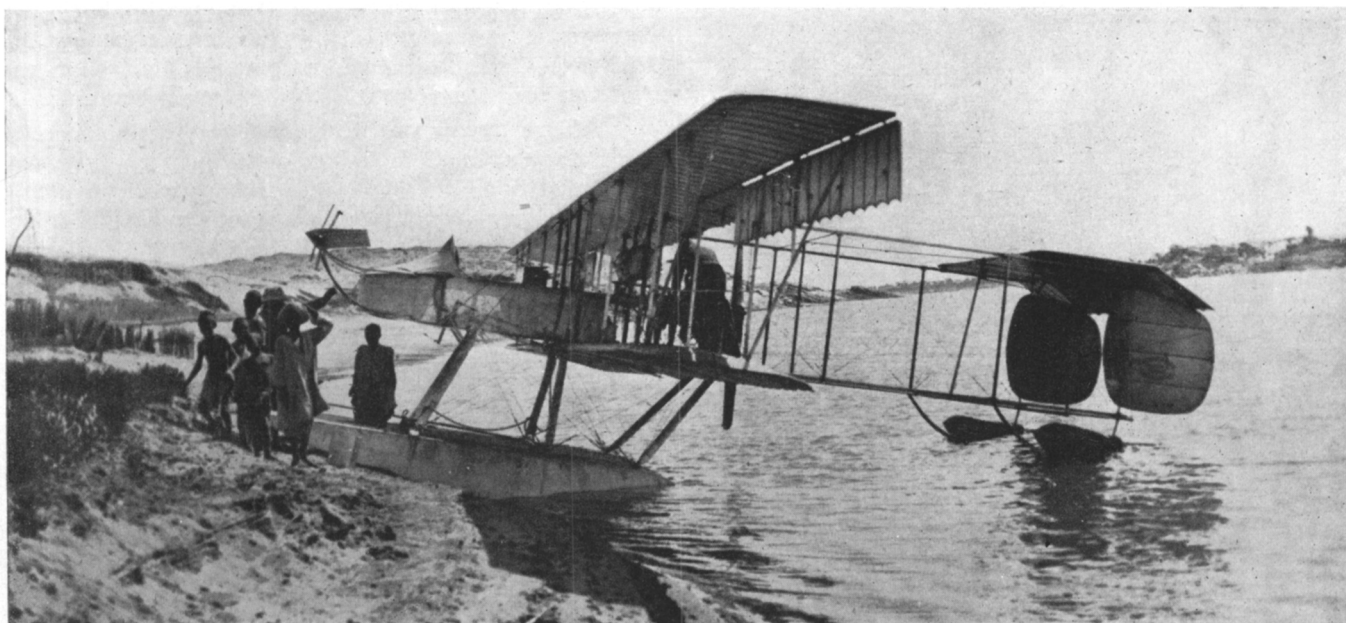
In November 1913 the Nile machine was on trial, first with wheels at Eastchurch and then with floats on the Swale at Harty Ferry.

It was then taken down, crated and sent by ship to Alexandria.

The Dockyard people there gave us every possible assistance and with the help of a couple of Short's own fitters and my mechanic, we had the machine assembled for trial by 2nd January 1914. In a manner typical of the next three months, the machine with its 160 h.p. engine was carried bodily into the water by a large party of Dockyard hands. I forget what it did weigh but the wings had a span of 60 ft. and the general construction was of the solid Short type. It must have been in the neighbourhood of 3,000 lb. In a calm or steady air condition it flew well and it was very pleasant to sit in



F. McClean, Gus Smith, A. Ogilvie and A. Graves at Cairo.



Breakdown between Merowe and Abu Hamed.

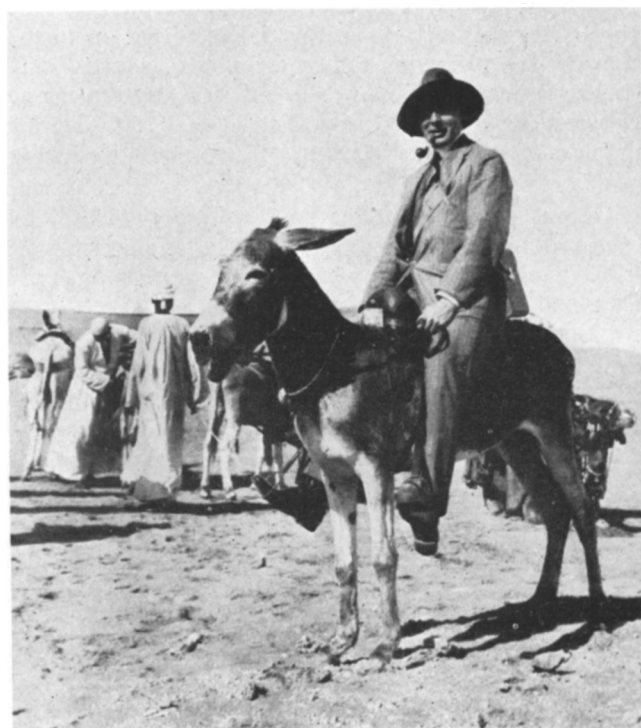
front with a fine view, but in gusty weather it was a nightmare to fly and it was as well for all of us that Frank had a strong hand as well as a steady head and plenty of experience. The range of speed was about 55 to 65 m.p.h. and it could climb at 150 ft. per minute. We had some 2,000 miles to go. The tanks would only carry supplies for 100 or 120 miles, so a great many fuel depots had to be laid down, some in perfectly outlandish places.

Before we started for Egypt the question came up, were we to go around the Dongola Bend or across it. It will be remembered that Kitchener in his Mahdi war had a railway built across this stretch and put the job in the hands of Percy Girouard. Frank had not quite made up his mind on this question and so we went to see Sir Percy Girouard in his London home. He strongly advised fitting the machine with wheels at Wadi Halfa and going straight across to Abu Hamed. On this, Frank, who was an obstinate man in some ways, decided to stick to his floats and go round. As long as we were near the railway, supply arrangements were reasonable, but some places entailed camel journeys of five days.

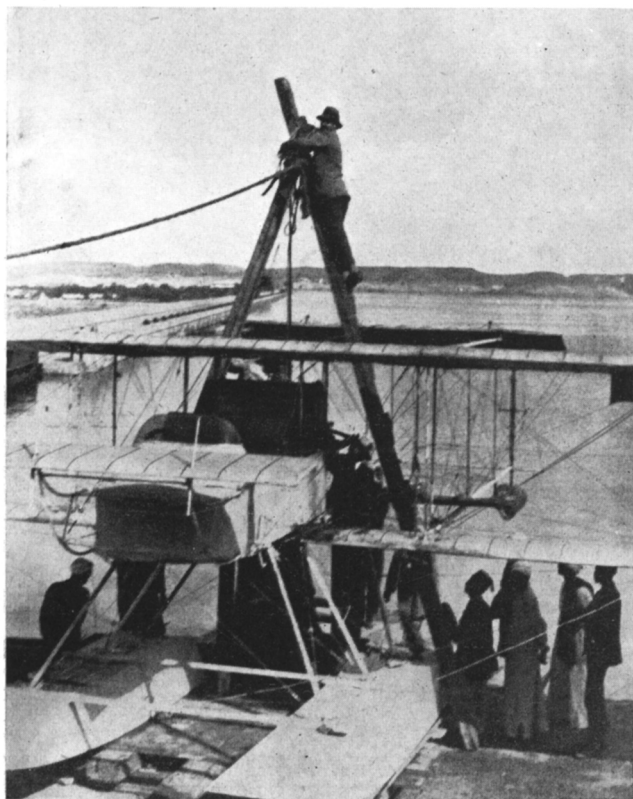
Miss Anna McClean, McClean's sister, was an absolute tower of strength on the "morale" side and we two might have packed up before reaching Khartoum if it had not been impossible to let her down. Poor Miss McClean, I remember on one occasion Frank and I were summoned by her from our work bench in the railway works at Atbara, where we were working on the engine, to come to the station to meet the Governor-General, Sir Reginald Wingate. When we reached the platform, in the far distance we could see a glittering body of white uniformed and bemedalled officials with Miss McClean hovering around. We were bedecked with patches of pure castor oil, considered necessary for those air-cooled Gnome engines, and the patches had collected dust and sand. I do not know if we had shaved but our appearance did no credit to Frank's

sister. I remember that the platform seemed to be a very long one.

Everyone throughout Egypt and the Sudan was extremely kind and seemed to be determined to push us through to our destination. Unfortunately, I had my pocket picked at Khartoum after arrival and so lost my notebook and diary as well as a considerable sum of money. What I am now writing is from pencil notes I made on the margins of the roll-up maps, many photographs, and some dates and details which McClean gave in the "Royal Aero Club Gazette" in May 1950.



Francis McClean.



Taking the engine out at Aswan Dam.

It is irrelevant to go over all the flights but I can remember certain details which may show high lights on McClean himself.

During the first part of the trip from Alexandria to Aswan, my flight maps are missing, but when getting away from the big expanse of water above the Dam, the power was so much down that I had to get on to the back of the plane, or rather the floats, before Frank could get her off. This was a bad sign and the engine was only making 1,160 revs. instead of 1,200. During the next 40 miles, it slowed up still more and we had to anchor.

It was obvious that the back row of cylinders had been getting seriously overheated and after another short trial, Frank decided to go back to the workshops at the Dam and take the engine right down.

As a result of the examination, he found it necessary to order a lot more cylinders and other spares, which would have to come from Paris and would take about a month to reach us. We felt that a month's hang up, and a prolonged spell of "Bar to Barrage and back," as Frank put it, would seriously impair our morale, so a trip was planned to enable us to have a look at the Cataract between Merowe and Abu Hamed.

All reports on the state of the river showed that the Nile was lower than it had been for 50 years with the result that many unusual areas of rocks were appearing above the surface and this particular patch should be investigated.

Frank's sister came with us, we inspected some of the worst places and had a very enjoyable trip.

After getting back to the Dam, reassembling the engine, and after a trial flight when the engine gave us 1,200 revs., we pushed off and got to Halfa (192 miles) in a day, with one petrol stop.

After a day or two we made a very early and easy start down stream. In an hour and a quarter we reached Kosha (105 miles from Halfa) where we had a petrol depot. We restarted within an hour and climbed to 2,000 ft. After 20 minutes I could see that the river, which had been glassy smooth, began to show ripples from a surface breeze which we began to feel at our height a quarter of an hour later. This phenomenon we noticed on several occasions. Early a glassy calm; after an hour or so, a surface breeze starting, and 15 minutes later reaching the machine at 2,000 ft. At Delgo, 180 miles from Aswan, we stopped for more petrol and it is a pity we did not wait till next morning.

For the next hour the map records very tough going, such as "Tremendous bumps. ASI jumping from 55 to 69; aneroid from 1,500 to 1,750 ft. in half a minute, down draughts of 300 ft. per minute." At Argo Frank decided that it was too bad to continue and after a very rough descent we got caught in a minor whirlwind and landed heavily, doing some damage to the left wing tip which struck the water and broke off.

The relatively enormous span of the wings, the aileron flaps only to be controlled downwards and the heavy floats below, constituted a calm weather aeroplane but not one to be comfortable in a dust devil.

This run of 245 miles was the most we ever did in one day. There were no white people at Argo, but the Sudanese Mamur or Inspector gave us all the help he could and entertained us in his house most hospitably.

After two or three days of rather comic repair work to the wing, we got going again, and reached Merowe without incidence.

Frank's reference to our stay "in luxury" there is an understatement.

The Governor of the Province, Col. Jackson, was a fabulous figure and had a fabulous mansion if not a palace. My recollection is of a dinner for four, a magnificently uniformed servant behind each chair and on the table in front of each, a bottle of champagne instantly replaced when the first one had been lowered. This was just what we needed to cheer us up. Jackson was apparently oblivious to our necessarily grimy and dishevelled appearance and entertained us with lively stories of Lord Kitchener.

We two and Spottiswoode were housed very comfortably in the Governor's river steamer. On our arrival at Merowe, we were introduced to a very holy man, the direct descendent of the Mahdi, but I don't think he was much interested. The natives throughout the trip were not much interested in the aeroplane as such, but were so in us. There was never any excited rush as there would have been if the situation had been reversed and a Sudanese had made a landing for the first time on the beach at Brighton. They walked straight out into any depth of water to give us a hand or a tow and on one occasion carried us and the machine bodily on shore.

On the run to Abu Hamed we had the wind against us which caused some anxiety, as there was not much

speed to spare, but we got there after one voluntary and a few involuntary stops. There was a lot of engine missing but we could spot a good many places where landings looked possible.

At Abu Hamed the river was wide and smooth but after an hour, we were back among a lot of rocky teeth. A pump broke down and we had to land, which Frank managed very skilfully among the rocks. After a mile or two of taxiing on the surface we ran ashore at Shereik, near the railway and so, not very far from our main stores at Atbara. The night was spent on "angarebs" in straw mat shelters, which the local natives put up in a very short time, to shield us from the cold wind from the North.

The angareb is a bed constructed of very crooked bits of timber with a web of string or thongs; airy and very comfortable.

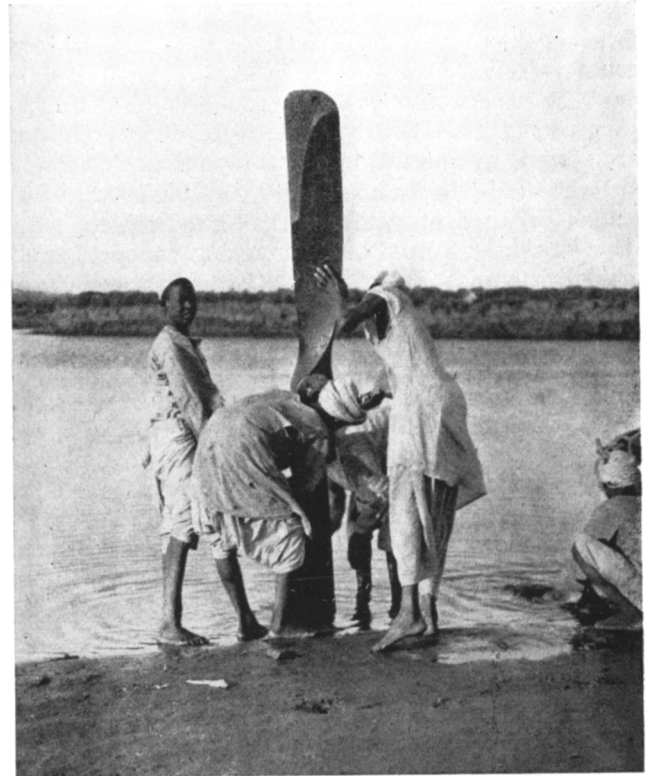
In the shore party was Frank's dragoman, a high class Arab, named Abdul, who used to turn up in the strangest places and take over our welfare.

Before Abdul arrived at Shereik, we kept going on the few supplies we had on the aeroplane. As a measure of our situation, I might recount that a sardine dripping with oil was dropped on the sand, picked up, brushed off and consumed.

The start from this riverside camp was sensational. According to my map notes: "Charging between two rocks 20 yards apart (our wing span) against a 10 m.p.h. wind and with a 5 mile current, we were in the air in about 10 yards." In a letter to me last year, Frank referred to this incident as follows:—

"You only once I think showed a well deserved distrust of me, when we were getting away from Shereik, with rocks to the right of us and rocks to the left of us. I had put my foot whole-heartedly on the gas, you shouted in my ear, 'Don't change your mind.'"

I don't remember this at all and the map note as quoted above and written at the time indicates a critical situation handled with much determination and skill. I don't remember any distrust. I always felt Frank would always get away with it if it could be done.

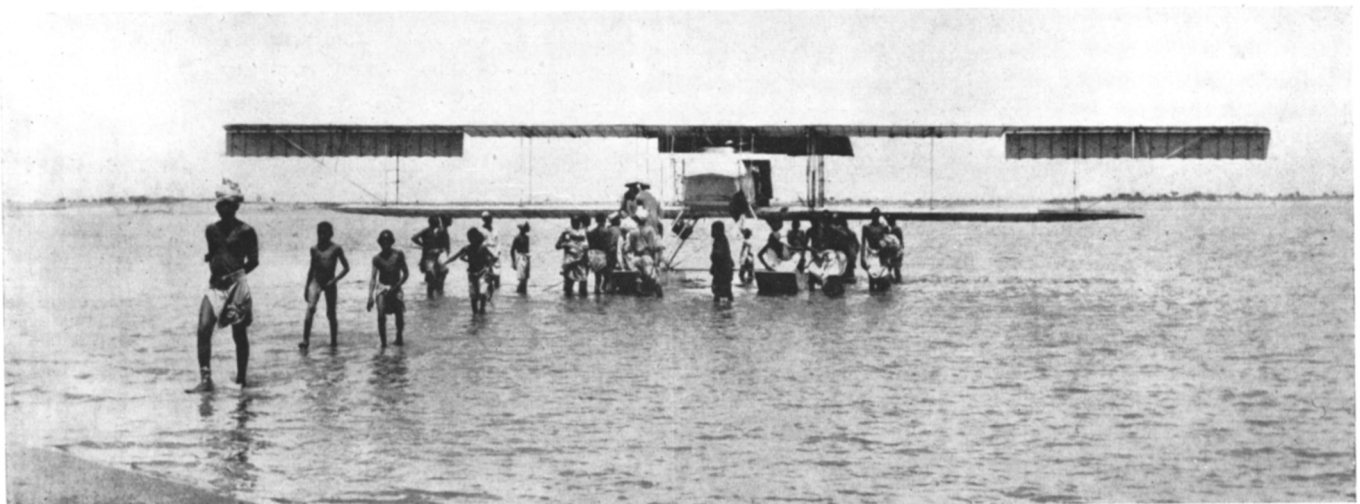


Cleaning the propeller—at Gananita.

After another short spell of an hour's flying, both oil pumps packed up and we had to come down in gusty weather with a dead engine. Though level, the landing was a heavy one and some damage was done to the chassis and one float.

This was near Gananita and we were carried ashore to an island in mid-stream by natives who appeared in large numbers from nowhere. All insisted on shaking our hands before taking any practical steps towards salvage.

The situation seemed to require a look into the structure to check up for possible further damage and



Coming ashore after the Gananita landing.

with the consent of the old Omda or chief, who was the owner of the island, we decided to set up a regular camp, getting tents and supplies from Atbara, not very far away, and make ourselves really comfortable. This was soon arranged and we were there for 10 days having been joined by Spottiswoode and my mechanic Graves.

I enjoyed this camp more than Frank, who was getting very fed up with our snail-like progress. But there was never a word of anger against anyone, merely a grim determination to get to Khartoum somehow or other.

The engine was lifted out with a pair of shear legs and stored in a small shelter on the extreme north tip of our island to avoid as much flying sand as possible. Wings were taken off and examined but I am ashamed to say that a complete fracture of the main top back spar in the centre section was not discovered till the machine was back in Shorts Works at Eastchurch undergoing a thorough overhaul before being converted (doubtless at Frank's expense) into a torpedo carrier for the Royal Naval Air Service.

It was as well we did not know this as it would have been very alarming to think of during the rest of our journey.

We left our island home on 14th March, got to Atbara in 40 minutes, pushed on early next morning in the hope of getting to Khartoum but after three-quarters of an hour, we heard the customary crash in the engine behind us. This time a connecting rod had broken.

Landing presented no difficulty to Frank but we had to run ashore at a place where, owing to the unusual lowness of the river, the bank was 20 ft. high and very steep.

The first problem was to remove the engine with no lifting tackle and not even a stick more than 6 ft. long and crooked at that. This problem was solved by getting the large gang of natives who appeared almost immediately to build a solid ramp of earth high enough and wide enough for a strong arm gang to draw the engine bodily out of its cradle and put it on an "angareb" with its crank-shaft sticking down through the webbing to keep it in place.

The next job was to get this up on top of the bank and was done by turning our gang on to making a cutting at a slope up which the angareb could be carried. On top, donkeys appeared; carrying teams were selected and we set off in style for the railway station a few miles away. I remember that Frank had difficulty in keeping his long legs off the ground. After a few days in the Atbara workshops we were back and made

another early start on 22nd March with 138 miles to go to Khartoum. Our average speed was 80 and at times the tailwind was 30 m.p.h., but the going was fairly good.

The Shabluka Gorge, about which we had heard some alarming stories, was about half way and presented a very fine sight. Thousands of duck could be seen getting up from the sandbanks 1,600 ft. below.

The vast area of Omdurman soon came in sight on our right, then the junction of the two Niles and Khartoum at last. Frank landed in style opposite the Governor General's white palace and taxied across to the Dockyard, where we hauled out.

Many kind people invited us out to dinner during the next few days but as guests we were poor value as we both invariably fell asleep after dinner.

We dismantled the aeroplane in the Dockyard and despatched it to Shorts.

It will be admitted that this was a very trying and arduous trip for all but particularly for Frank McClean. He got very exhausted and haggard but I do not recall a cross word to me or to anyone else. He remained his genial and stout-hearted self to the end.

My last glimpse of him was at the Society of Arts in December 1953 when Captain Pritchard was giving a lecture about the Wrights. To me, he looked pretty well, but when I asked if he was coming to the dinner next day to celebrate 50 years of flying, he said that the insides the doctors had left him were capable of absorbing a little food but no drink, which was no way to celebrate the first flight of the Wright Brothers whom he knew and admired very much.

I will end this lengthy but inadequate appreciation of Frank McClean with the first letter I ever had from him:—

7th May 1909.

"Dear Ogilvie,

I enclose an application for membership of the Aero Club. Will you fill it in, together with the name of your seconder and return it to me.

I have the promise of the third of the Wright machines which Shorts are building. They will probably all be ready about the same time (a couple of months?).

Rolls, who has one, is going to be taught how to drive in France. I am trusting to luck and any experience I may get with my Short machine.

Yours sincerely,

F. K. McClean."