

The Handley- Page Attempt. Machine and Men.

Handley-Page-on-the-Sea.

Harbor Grace, To-day.

A general resume of the facts con-

cerning the giant Handley-Page a-

eroplane at St. John's, Nfld., to-

day. The machine is such a monster

that one may look at it for hours at a

time, and in each successive view the

novelty and interest lessen none and

leave the beholder in a frame of mind

described as appalled. For the last

two weeks I have been actually on

Handley-Page-On-The-Sea, the splen-

d aerodrome, and in all this time the

impression of the biplane's mon-

strous and magnificent proportions

has not diminished nor lost in point.

It will, perhaps, be unnecessary to

state that a machine, to be a biplane,

must have two planes, or wings, and

in the same way must have three

wings to be a triplane. The mono-

plane possesses but one wing. New-

foundland has seen only the biplane,

and yet, all aeroplanes and seaplanes

that have been here having had two

wings each.

The Handley-Page biplane, named

"Atlantic," is the biggest biplane in

the world, and costs, as she stands,

one hundred thousand dollars. In

view of the fact that the prize of the

London Daily Mail competition, in

which every machine that has been

here, with the exception of the

Americans, has been competing, is

but fifty thousand dollars, it may be

rather incomprehensible to some just

why the machine enters the competi-

tion at all. When it is explained,

however, that it is not so much the

prize as the publicity to be gained

from a successful achievement that

the big aircraft construction compan-

ies have entered their machines, this

will no longer mystify or bewilder.

When the cost of the nine hundred

yard long by two hundred wide a-

eroplane, the cost of transportation

and assembling of the machine, and

the many other expenses have been

paid, it will be seen what a flea-bite

the Daily Mail prize of fifty thousand

dollars really is.

The "Atlantic" weighs sixteen tons.

To give an idea of this weight, it

might be stated that, whereas the

Sopwith and Martinsyde machines

could be wheeled out of their hangars

by half a dozen men bearing the tail

on their shoulders and pushing them

on the wheels, the Handley-Page can-

not be handled except by the help of

a steam tractor. This tractor, which

is in shape, very much like the whip-

per tanks which were used in the late

war, is very powerful, and many of

the same type are used in agricultural

districts of Canada and the States for

dragging plows and doing other heavy

work.

The wings, of which there are two,

are one hundred and twenty-six feet

high and twelve in width. They are

composed of tightly stretched canvas

— regulation aeroplane fabric — on

wooden frames. The wings do not

flap, as some people think, but are

quite stationary all the time. As

Newfoundlanders, to whom aeroplanes

will for long yet remain in the cat-

egory of the unknown, our education

in things aeronautical is yet sadly de-

fect, and such questions as, "How

do you inflate the wings?" and "How

do the wings flap?" are frequent

and many. As Newfoundlanders, how-

ever, (and this thought will brighten),

we will peer us when we do take

the subject up in earnest.

The fuselage — a French word,

meaning, literally, passenger convey-

ance—is the main body of the machine.

It, like the wings, is comprised of

wooden frame-work, stretched over

with canvas, and is constructed with

an eye to strength consistent with

lightness of weight. The fuselage,

which measures, from the nose to the

tail, just over 80 feet, and 8 ft. in depth

and 6 in width, is square in shape, get-

ting slightly smaller as the tail is

reached. The cockpit, in which the

pilot sits, is in the very nose of the

fuselage, with the roof open. Here is

situated the wheel, by which steering

climbing and descent are controlled.

A thick plate glass shade, similar to

that of the automobile, protects the

pilot, to a degree, from the fierce wind

that is necessarily caused by the great

velocity of the machine. The other

pilot, the navigator and the wireless

operator sit in the cabin, immediately

to the rear of the cockpit, and separ-

ated from it by a canvas door, which

prevents the wind from entering. Ex-

tending from the rear of the cabin to

about half way back of the fuselage is

the petrol tank. This tank, which has

a capacity of two thousand gallons,

seventeen hundred of which will be

utilized on the Trans-Atlantic, is con-

nected with the four engines, two on

either side of the fuselage, by pipes.

Small propellers, about ten inches in

length, driven by the wind, pump the

petrol into the engines.

The fuselage is situated between the

two wings, which run parallel to each

other, and at right angles to the fus-

elage. The rudders, of which there are

four, and the elevators, which lift the

machine, are situated at the tail of the

fuselage.

There are four engines, all four

hundred h.p. Rolls-Royce, "Eagle 8's."

The engines are situated between the

two wings, two, placed end to end,

being on either side of the fuselage,

and running parallel to it. Because

the engines are placed end to end, two

together, one radiator serves for two

engines, and thus two only are re-

quired. The front engines are fitted with

two bladed propellers, called tractor.

The rear engines are each fitted with

four bladed propellers, called pushers.

The propellers, both tractor and

pushers, are of wood, light and very

tough. They revolve with incredible

speed, and one cannot see them as

they are in motion. With all four

going, not at full speed, but only

when they turned, they make such a

terrible thundering noise, that one

may shout at the top of one's voice,

and one cannot hear the sound of one's

voice. The noise, however, especially

when the machine is in the air and the

engines are in full swing, is so great

that the aviators must be supplied with

sound intensifiers, placed to their ears,

inside the leather helmets that are

worn. A rubber tube, about a yard

long, and fitted, at the end, with a

mouth piece, hangs down in front, and

when one aviator wishes to speak to

another, he holds the other's mouth-

piece and speaks into it. To answer,

the other takes his tube and speaks

into it. In this conversation may

comfortably be carried on, despite the

roar of the four engines.

The "Atlantic" possesses four

wheels. These, which are rubber tire-

ed, and tightly inflated, are placed in

a row, being so situated that they sup-

port the weight of the engines. Each

wheel is fifty-nine inches in diameter

and the tyres are twelve inches in



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button any more but
we still do the rest.

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modern methods, im-
proved equipment &
tested chemicals in-
sure results.

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thickness. They are placed on very
strong axles, and are fitted with the
latest-nest ball bearings. So nicely
are they hung, that, after the aeroplane
has taken off and is speeding through
the air, the wheels continue to revolve
for some minutes after.

They are covered in with canvas, to
prevent the wind from playing on the
spokes and impeding the machine. The
canvas used here, as in every other
part of the biplane, is painted with
what is known, in aeronautical parlance,
as "dope." This, which is white in
color and thick, like syrup, in sub-
stance, is applied like ordinary paint,
and serves to thicken and shrink the
canvas and to make it waterproof. This
painting is known as doping.

The machine is equipped with two
sets of wireless. One set consists of a
transmitter and a receiver. There is
also a spare set for transmitting and
receiving. The third set is for direc-

tional work. The spare set is to be used
should occasion call, from the water, if
the plane be compelled to alight.

In the eventuality of this last event
the machine's chance is good. Three
rubber bags, or four if possible, will
be contained in the fuselage, behind
the petrol tank. The bags are inflated
with air, and make the plane very

buoyant. Hydrogen gas, of course,
would make her even more buoyant,
but it has the disadvantage of being
highly inflammable. Before being
placed in the fuselage, on Saturday,

they were begun to be blown up by sev-
eral of the men around, and visitors
and press representatives were there
to help. At first a small hand pump

was used, but after a few turns all
round had been taken, this method was
found to be too laborious, the days
of football were recalled to all when

the old-fashioned way—that of blowing
by mouth—was called into use, and all
took their turn at blowing. To Lieut.

Robin Reid went the honor of having
had the longest wind, for he kept up
blowing so long that he half filled a

whole bag, a feat that would make a
small boy's eyes gape in wonder and
admiration. A useful little gas-driven

pump, arriving from St. John's in time,
was put in action and the bags were in-
flated in quick time.

As the amount of woodwork on the
machine is so considerable, and the
four wheels themselves will float a

weight of two tons, and the rubber bags
will be in position, the machine, should
she be compelled to alight, will stand

a good chance of keeping afloat for a
period long enough to enable assistance
to arrive in time to effect a res-

cue. In addition to the regular R.
A. F. flying suits, also, the aviators
will be equipped with India rubber

tube belts, which may be inflated at
very short notice.

The food, of which there is a suf-
ficiency for twenty-four hours, will be
kept in Thermos flasks.

At first, it was agreed upon, the
"Atlantic" would fly over St. John's
in her trip across the great waste.

This idea has been abandoned, and
she will steer out from Harbor Grace,
directly across the Bay, past Cape St.

Francis, and so on over the Ocean.

If the fuel supply has diminished to
an extent that would necessitate
this, she will land at Ireland, pick

up petrol, and continue to England.
If, on the other hand, additional fuel
is not required, she will make a non-

stop flight to England.

The advantage of having four en-
gines will instantly be perceived
when it is known that, should one of

them break down when in mid-
Atlantic, she could continue on on
three engines; and were two to de-

velop trouble enough to put them out
of commission when three parts of
the flight had been accomplished, she
could complete her voyage on the re-

maining two. Unlike the Sopwith
and Martinsyde biplanes, whose en-
gines were started by two men

swinging the propeller, these are got-
ten in motion by a small crank, turn-

ed by one of the mechanics, as an
automobile is cranked.

And thus, averaging a speed of
about ninety miles, this monster of
a biplane will go hurtling through

the air, carrying her crew of brave
men and attempting to strengthen
the link that joins the Old with the

New World. Sixteen tons—the weight
of three hundred men—will thunder
through space, and if she does not

achieve the great adventure, wisely
so called, it will be a surprise to
those who have had the privilege of

witnessing her being assembled and
watching her make her trial flights.

Local interest in the Handley-Page
machine is aptly described as fever-
ish, and with her departure all Hr.

Grace will experience a pang of deep
regret, for she has endeared herself
to everyone. Hr. Gracians are, with-

out exception, proud and jealous of
their reputation, and anything that
serves to make the town prominent

is treated with exemplary respect.
Handley-Page-On-The-Sea is contin-

ually crowded with interested people,
who are contented to stand around
and watch the progress of the ma-

chine. On the day of the first trial
flight, all Hr. Grace and all Carbonear
were present on the aerodrome, and

had both these towns been the un-
fortunate possessors of the burglar-
iously inclined, they would certainly

have suffered. As the machine tax-

ied slowly down the field toward the
bottom, and turning to face the wind,
bounded forward at full speed

and took off after a distance of about
eighty yards had been covered, a wild
cheer of enthusiasm, mingled with

admiration and awe, broke from every
throat, for the rise was certainly an
inspiring sight, even for those pre-

sent who were well used to take-offs.
The weather, since the arrival of
the machine, in its big cases, big

enough to be used as houses, has been
perfect, and was voted by the Eng-
lishmen as being the best they had

ever experienced. The work of as-
sembling the machine, therefore, has
gone on with considerable speed, and

considering the number of mechanics
engaged, (twelve), and other difficul-
ties that had to be contended with,

has been accomplished in record time,
and was actually better assembled
than in the machine shops in Eng-

land. The mechanics, under Fore-
man Petch, are experts in their line,
and the best of the great Handley-

Page plant.

Lieut-Col. E. W. Stedman is engi-
neer in charge of construction, and to
him is largely owed the speed of the

machine's assembling.

Major G. I. Taylor is the meteorol-
ogical expert, keeping the aviators
informed as to weather and air con-

ditions. Major Taylor knows his
business.

Vice-Admiral (Major General of the
Royal Air Force) Mark Edward Fred-
erick Kerr, R.N., C.B., M.V.O., is the

command