

STATION, POST AND
TELEGRAPH OFFICE,
RICHMOND, SURREY.

No. $\frac{469}{XIV}$.

ALL CORRESPONDENCE TO
BE ADDRESSED TO
THE SUPERINTENDENT.

Kew Observatory,
(Old Deer Park.)

Richmond, Surrey.
June 23 1898

5/77

Dear Professor Fitzgerald

There is I think no
doubt that Ives's dip circles are the best.
The ordinary supply is 2 dip needles,
which should suffice for your purpose.
The other necessary instrument is a
unifilar magnetometer - for declination and
horizontal force measurements. We used to
consider Elliott Bros. the best makers of these,
but, though I believe the death of the
workman skilled in the construction,
their unifilars of some years ago were
not very satisfactory, and from our recent
experience I should be disposed to
recommend Ives, always provided there

is no special hurry. I mention this point because I know I was to have a considerable amount of magnetic work in hand. It is quite customary for us to order instruments, which it is understood we are to test, and I am quite prepared to do so for you.

Without verification - including construction of tables &c - horizontal force observations at least are impracticable.

The ^{probable} cost of the instruments mentioned is as follows:

Dip Circle (2 needles)	£ 26	5	0
Verification	1	1	0
Unifilar Magnetometer	60	.	.
Verification	5	5	0
Packing case	2	10	0
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	Total £	95	1 0

This would not include transport to Ireland. Probably some trustworthy person had better take the instruments over as personal luggage.

A Chronometer is required for the vibration experiment in work force; but this

I presume you already have.
As to dampness & all the magnets ^{when not in actual}
should be kept in the observer's house in
a dry place, and they should be carefully
wiped after each observation if necessary.
I know of no precautions possible in
the construction of the instruments
themselves, ^{but could consult make.} These might be drying
agent in the experimental hut.

There is I understand a railway line
& electric lighting at Valencia. I hope the
exped. hut is not so near the ~~other~~ ^{frame} as
to render the rails a source of suspicion
& that there are no wires near it. Any
uncertainties of that source are troublesome.
The trains are I presume so few that
any tremors might be avoided.

As to the verification fees mentioned
above I have no power to modify
or remit. I have known the
Kew Committee do this in one or

two special cases, but the Committee will not probably meet again until October so that no application could be considered until then.

I shall await a reply before ordering the instruments, desiring to feel sure you have all the facts before you. Probably the instruments will not be ready for use until October.

yours faithfully
Charles Cree
Superintendent

Professor G. F. Fitzgerald F.R.S.

Trinity College

Dublin

5/77