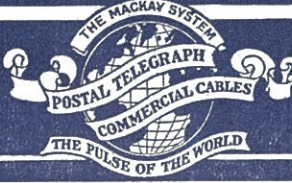


POSTAL TELEGRAPH - COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT

TELEGRAM

TELEGRAMS
TO ALL
AMERICA



CABLEGRAMS
TO ALL
THE WORLD

CLASS OF SERVICE DESIRED

FAST TELEGRAM

DAY LETTER

NIGHT TELEGRAM

NIGHT LETTER

X

The sender must mark an X opposite the class of service desired; otherwise the telegram will be transmitted as a fast telegram.

RECEIVER'S NUMBER

CHECK

TIME FILED

STANDARD TIME

Form 1

and the following Telegram, subject to the terms on back hereof, which are hereby agreed to.

To

192

Mr. A. H. Bumstead,

New York, Sept. 20, 1928.

National Geographical Society,

Washington, D. C.

Commander Byrd out of City Replying to your telegram for him please send

Sun compasses to me at Biltmore. Will order extra cover glasses and
pointers if possible.

R. F. Shropshire.

Chg. Byrd Antarctic Expedition.

Copy

September 20, 1928.

The Pioneer Instrument Company,
754 Lexington Avenue,
Brooklyn, New York.

Dear Sirs:

I have examined the five sun compasses made for Commander Byrd, and am forwarding them to him today.

I note that the pointers are made of soft brass and that one end is very thin and weak, so that it may be bent by jarring. I have recommended that Commander Byrd order extra pointers, and if he does I hope you will make them stiffer.

I noticed also that the ruled lines on one of the targets were off center so that the shadow line would not be parallel to the hour circle indicated by the clock. I was able to redraw these lines in correct position.

In one of the compasses there was a $\frac{1}{2}$ degree error in the setting of the vertical arc, i. e., the arc read $90\frac{1}{2}^{\circ}$ when the clock face was parallel to the base. This will have no appreciable effect, but it indicates careless workmanship.

One of the cover glasses had rattled loose in shipment. I think a cement could be found that would hold these more securely.

Your design of the vertical arc with one spoke instead of two is doubtless easier to make, but I am convinced the extra effort of making two spokes would be well worth while.

The central clamp screw is very small and weak as compared with the strength of the rest of the instrument. I would recommend it be made $\frac{5}{16}$ diameter and that a washer which can not turn on the stud be placed between the clamp nut and the compass dial.

I hope these suggestions will be of value to you and will help to make the sun compasses more practical and workmanlike.

Yours truly,

Albert H. Brewster

National Geographic Society

WASHINGTON, D. C.

HENRY WHITE, VICE-PRESIDENT

GILBERT GROSVENOR, PRESIDENT

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JOHN JOY EDSON, TREASURER

O. P. AUSTIN, SECRETARY

GEORGE W. HUTCHISON, ASSOCIATE SECRETARY

June 6, 1928.

Commander Richard E. Byrd,
9 Brimmer Street,
Boston, Massachusetts.

Dear Dick:

Yesterday I was in Boston to confer with the C. L. Berger company regarding the development of the gyro device that I have designed for you. I have known this firm by reputation and by personal dealing for more than thirty years and I believe they, if anyone, will make a success of this instrument.

After working over this problem and particularly since discussing it with these instrument makers, I have become very much interested in its development and its possibilities. If it can be successfully made, it will enable you to do these things with a single observation on the ground which will be simple to make and require only a few minutes: Get the latitude, the true meridian and the magnetic declination. If you have a magnetic declination chart you will be able to plot your "fix" at the intersection of the parallel of latitude and the declination line.

I don't know of any other instrument that pretends to give latitude, longitude, azimuth and declination in cloudy weather without a chronometer. Theoretically this is possible, just how near it can come to it depends on the skill of the instrument maker.

It may cost \$1,500 or \$2,000 to make this first instrument. Do you want to risk that amount on the chance that it will succeed? Please let me know right away as the instrument makers are all ready to go ahead with it and they need all the time there is. If you want to communicate with them direct, you can address C.L. Berger & Sons, Inc., 37 Williams Street, Boston.

I was sorry not to be able to see you, but Mrs. Byrd said you were in New York.

Sincerely,

Albert

AHB:B

Albert H. Bumstead.

I have just seen Mr. Grosvenor who has told me to go ahead with this at the expense of the Geographic. I have just wired Berger to go ahead.