

October 31, 1943

Dear Schuyler:

For the past couple of weeks I have been looking into the situation on this proposed invention of mine.. In the present state of the art the apparatus can be condensed down to about the size and shape of a grand piano. It will probably weigh somewhat less however.

I have posed the general question to several navy officers which come thru our plant. As it turns out they are all pants pressers, automobile salesmen and office clerks which have been sworn into the navy and know about as much about navigation as the man in the moon. In any case the proposed device will have to compete with a sextant so one of the things I want you to find out is: How accurate in angle can the altitude of the sun be measured with a sextant.

In bad weather it seems that a ship navigates by means of a dead reckoner. This is the device which caused several destroyers to run on the rocks off California some years ago. The dead reckoner has probably been improved a lot since. However by the nature of the device it seems to me that it will naturally get farther off as time goes on and become useless after a sufficiently long time. I want you to find out to what extent a dead reckoner is used to navigate a ship in bad weather. If it is a highly accurate device capable of giving position after several days of bad weather then there is no place for my invention as the useful field is covered.

During the last war some work was carried on to develop a device for locating the sun during cloudy weather by means of the infrared radiation from the sun. This device used bolometers or thermocouples for detecting the heat radiation. It is my understanding that the results were very unsatisfactory due to absorption caused by water vapor in the air. Also the infrared energy was subject to a great amount of diffusion and scattering the same as visible radiation so that after the infrared energy was detected it was not possible to determine with any accuracy where it came from. Now I want you to find out if some such device as this has recently been developed and how accurate it is. If such a device is now in use and giving good service then again there is no place for an invention such as mine.

By adding slightly to the complexity of my proposed device the azimuth of the sun can also be measured. Please find out if there is any point to measuring the azimuth of the sun.

I have written out a complete discussion of the proposed device and drawn up sketches with the intention of filing for a patent on the general system. However before this is done it

will be well to find out what, if any, practical use the device would have. This is where you come in as outlined above. Please see what you can do. There is absolutely no point to spending a lot of time and work on something which has no use and is not wanted.

From your last letter I gather that you think I am going to build such a device and have it operating next spring. In normal times it might be possible. The equipment I referred to is that for which I already have material on hand which was purchased before the war. The purpose of this equipment will be to continue my astronomical investigations with a greater accuracy than before possible. It was planned and detailed quite some time in the past. This material cannot be altered or adapted to make a position finder as proposed in the invention. All it can do is demonstrate with greater accuracy the principle involved in the invention.

If, after your investigation of the above questions, it is found that the proposed invention has merit and will serve a useful purpose I intend to file patent application for the general system and to as many apparatus details as I can conceive of. Then it will be necessary for us to bring it to the attention of the proper authorities and get something of a project authorized so that material can be had for the construction of a model. Who the authorities are, the kind of project, who is to do the work, where and how its to be financed can all wait until we are certain the proposed invention has real merit and if so until we get some patent coverage on atleast the general system. The ball is now in your hands.

The status quo is maintained here at home and things are going reasonably well. Bert is slower than molasses in January and we are getting now where on fixing the house. He is now a month late with the quarterly report and I'll have to punch him up again to get that. When it comes thru I'll send on a copy to you and give you a dissertation on finance in general.

Your recent letters have been in long hand. Where is that typewriter? You're not afraid that Jean will show you up behind the keyboard are you? Give her my regards and tell her I'll be down east sometime before Christmas.

Yours truly,