

By reversing this reasoning it follows that the photo-image of a vertical object will be a foreshortened projection of the object (see Figure 3). If the line of this image is projected toward the photo-center it must pass through the plumb point. If two or more upright objects (posts, masts, house corners) are so projected, the intersection of the lines locates the plumb point (see Figure 4). This is shown in Figures 5 and 6.

CONCLUSION

It is concluded that it is possible to locate

an aircraft position by taking one vertical or near-vertical photograph at the instant of photographing the Decometers for a Decca position fix. The accuracy is estimated to be within one foot of the true distance. The method used has been named vertical object image resection.

The method could be used for high-altitude high-performance aircraft by using a medium to long focal-length camera and tall objects, such as the masts of a large radio transmitter.

In a city area, such as New York, the corners of buildings could be used.

Discussion of "One Hundred Years of Photogrammetry"*

J. J. KLAWE in his letter of August 14.
*Lecturer in Cartography, Dept. of Geography, High School Yards,
University of Edinburgh*

"I would like to offer my humble correction to the most interesting article by Mr. Leon T. Eliel entitled "One Hundred Years of Photogrammetry" in your last issue, Vol. XXV, No. 3, June 1959.

"The Surveyor General of Canada, Deville, was the first man to apply the ground photogrammetric survey for actual mapping of the Canadian Rockies but the method which he used was the intersection method and not stereoscopic. The ingenious mechanical de-

vice which Deville designed was the forerunner of photo-alidade. If I am correct, this method is still in use in Canada. It is true that Deville did foresee stereoscopic possibilities but the development in this line was only possible after Pulfrich's achievement in this field.

"The pioneering work of Laussedat is rather given credit for his ground survey and not photographic survey."

LEON T. ELIEL in his letter of September 12.

The pertinent portions of the letter are as follows:

"First let me say that I am very flattered that Mr. Klawe went to the trouble to read the article, not to mention the bother of writing about it. I cannot, however, completely agree with his opinion.

"May I ask him to refer to "Photogrammetry, Collected Lectures" edited by O. von Gruber, pages 176 to 178. I particularly refer to the illustration, Fig. 31, on page 177. While, as the article states, Pulfrich and many others who followed Deville, made improvements, the fundamentals of a complete stereoscopic

system were incorporated in Deville's conception. It seems that this apparatus was the first to be able to draw contours from a stereoscopic pair of pictures, using the floating mark, and having a drawing pencil articulated therewith.

"While in no way detracting from the important work subsequently done by Pulfrich, I still feel that my paper gave the facts and the credit substantially according to the facts as I know them.

"I again, however, want to thank Mr. Klawe for his interest."

* This paper was read at the 25th Annual Meeting of the Society.