of terrain from urban and cultivated areas to the mountainous areas of Alaska with contour intervals of 20 to 100 feet.

Recently rigorous accuracy tests were made on an area that was 80% covered with dense deciduous trees. The aerial photography had been made during the winter to minimize the leaf cover. The scale of the photographs and map manuscript was 1:20,000 and the flying height was 14,000 feet. The horizontal accuracy test resulted in no change either in shape or position of planimetry. The vertical accuracy tests found 78% of the test points to be less than two feet in error and only 4% in error as much as 5 feet. The root-mean-square error or standard deviation was 2 feet, giving a permissible contour interval of 8 feet. The corresponding C-factor calculates to be 1750.

STEREO-MAPS

by

A. Frey Samsioe, Dr. Techn. and Percy H. Tham, Dr. Techn., Stockholm.

Since the 6th International Congress of Photogrammetry was held in the Hague in 1948, various types of maps, permitting a three-dimensional presentation of terrain, have been discussed. Instead of the traditional contour lines, with their limitations, direct reproduction of the ground has been the ultimate aim.

The moulded relief maps of plastic material, particularly used in the U.S.A. are an interesting development. By the exaggeration of the height scale the model gives an impression similar to that obtained by a pair of pictures stereoscopically observed.

With regard to stereo maps, a new type is proposed by *W. A. Brucklacher*, described in Bildmessung und Luftbildwesen, I/1950, Berlin. This "map", however, is not a real map, but is a systematic assembling of pairs of pictures in such a manner that a "window-frame effect" is obtained. This ″grid" aids the visual relief impression. The use of this method, as is mentionned by the proposer, depends on a very good flight performance and also on the fulfilment of other necessary conditions. Brucklacher goes on to say that the production of a true-to-nature anaglyph map would be impossible in view of the central projection of the image.

In actual fact the production of such a map is possible, and the authors have made an anaglyph Map that is completely true to nature. It is composed of about 7 pictures fitted together in conformity with the "compilation" method used in Sweden. A check of the accuracy of the map has fully established that it is impossible to find the boundaries of the pictures when observing the map wth a mirror stereoscope. In presenting this map it needs only be said that the right (red) "master map" is a normal map true to scale; the left (blue) ″parallax map" gives the necessary parallaxes. There are no other points to be taken into consideration other than that of increasing the overlap to the double, i.e. from 60% to 80%. With these pictures on file, it will always be possible to obtain a three-dimensional map.