Asia; 7 in the Atlantic Ocean and adjacent water, provisionally; 60 provisionally, and 32 uncertainly, in the Pacific Ocean and adjacent waters; 7 provisionally in the Indian Ocean, and adjacent waters; 269 unknown.

THE AERIAL SURVEY DETACHMENT

Two aerial survey detachments, each composed of a commissioned officer of the Army Air Corps, who is a photographic pilot, and an enlisted photographer, were recently authorized by the War Department, for the purpose of assisting the U. S. Geological Survey in carrying out its extensive program for the present calendar year in mapping areas in various states throughout the country.

One of these detachments will photograph areas in Maine, New Hampshire and Vermont, approximating 8,000 square miles. A great portion of these areas, particularly in Maine, have never been adequately mapped, and all existing are old and somewhat obsolete. The other detachment will begin operations on a 4,000 square mile area in Illinois, and later will photograph areas in Michigan and Wisconsin.

One detachment of this kind, organized last year for a like purpose, photographed during a six months' period approximately 9,000 square miles of territory in the states of Michigan, Wisconsin and Illinois. Through the work of this detachment it is estimated that the saving to the government was approximately $100,000, thus demonstrating the efficacy and economy of aerial surveying.

Each aerial survey detachment is equipped with trilens camera and accessories, and furnished with two special photographic planes, one of which is held in reserve. The function of these detachments is to make aerial photographs, which are in turn used in making topographic maps by the Geological Survey. The personnel of the detachments is relieved of all other military duties and assigned exclusively to aerial survey activities for a period of six months. It is placed under the direct control of the chief of Air Corps, who is authorized to issue the necessary orders, for its movements and employment, according to the program submitted by the survey.

THE CHEMICAL EXPOSITION

FROM the advance information which has reached *Industrial and Engineering Chemistry*, it may be announced that

Many distinctively new and outstanding achievements in chemical engineering, in the manufacture of instruments of precision, in mechanical engineering as applied to the chemical industry, in new apparatus of various and sundry kinds, and, we are happy to say, in new chemicals and new chemical products, will feature the Eleventh Exposition of Chemical Industries, which will open its doors to the public on September 26 at the Grand Central Palace, New York City. There will be an extensive exhibit of casein plastics, some of which are new in the field and deserve careful examination. Alloys especially high in their resistance to corrosion will be another point of interest, for some of them have been offered only lately following a considerable period of research. One of the great corporations which has not been prominently identified with this development has recently undertaken some new lines of manufacture, the products of which will be seen at the exposition.

This year in a section devoted largely to exhibitors of containers, emphasis will be placed upon packaging, weighing, labeling and handling equipment. The subject of containers has long been a troublesome one, for in the past many products of the chemical industry have been marketed in such disreputable packages that attention was directed to the matter some time ago. Not only is the use of such packages detrimental from the sales point of view, but in some instances the common carriers have refused to accept some commodities for transportation, not primarily because of their hazard, but chiefly because of the carelessness in methods of packing. This unfortunate situation is now much relieved and the exhibits to be found this year at the exposition will prove of great assistance to chemical manufacturers.

Among the exhibits will be found many of distinctly educational nature. These include those under the auspices of the American Ceramic Society, the American Chemical Society, the National Safety Council, several bureaus of the United States Department of Commerce and the United States Department of Agriculture. Several industries will use the opportunity to promote the education of the public with reference to their products, as for example, the new types of glass which permit a large percentage of the active rays of the sun to pass through them. Iowa State College will present evidences of development in the industrial use of agricultural products. From the territory represented by such railroads as the Southern and the Southern Pacific Company, and from the Ontario Department of Mines will come interesting displays of natural raw materials from the field as well as from the mine. The southern section will include a considerable number of exhibitors, part of which will represent commercial houses and large industries. Some three hundred exhibitors are upon the list of those who have engaged space.

SCIENTIFIC NOTES AND NEWS

BERTRAM BORDEN BOLTWOOD, since 1910 professor of radio-chemistry in Yale University, died by suicide on August 14, at the age of fifty-seven years.

FRIENDS of Mr. Thomas A. Edison and employees of the Edison interests throughout the country joined on August 8 on the lawn of Edison's home at Llewellyn Park, West Orange, N. J., in honoring the inventor, who fifty years ago completed the first mechanism for