Colorado; 12th, frost western valleys of Colorado and extreme north-central and extreme northwestern New Mexico; 14th, frost southwestern Colorado valleys, extreme northwestern New Mexico and extreme southern Utah; 22d, frost extreme southwestern Colorado, extreme northwestern New Mexico, and northeastern Arizona.

The following fire-weather warnings were issued: 7th, strong shifting winds in New Mexico, Arizona, and Utah; occasional showers probable in New Mexico, northeastern Arizona, and southeastern Arizona; 31st, strong southwest winds indicated in northern and eastern Arizona, New Mexico, and southern Utah; local showers probable in Utah. The conditions that followed justified the issue of the warnings.—*J. M. Sherier.*

SAN FRANCISCO FORECAST DISTRICT

The feature of prominence as disclosed by the daily weather charts was the presence, rare for the month of May, of well-defined cyclonic areas on two occasions over the ocean off the California coast. The first of these apparently formed off the coast preceding the 10th and caused rains in California from the 10th to 13th and another formed off the coast on the 14th and 15th and caused general rains over the same State from the 16th to the 20th. The rains were detrimental to some of the fruits and to newly-mown hay; otherwise they were beneficial. In the aggregate the benefit from the rains more than offset the damage done. Forecasts of their occurrence were accurate as to time and place. The precipitation in the San Francisco Bay region was unusually heavy and brought the catch of rainfall for the season well above the normal and produced at San Francisco the heaviest May rainfall since the record began in 1849. It is not possible to say whether the cyclonic areas actually formed off the coast or whether they moved southeastward from the Gulf of Alaska. The Pacific high on these two occasions was displaced far to the westward of its normal position, being centered north of the Hawaiian Islands, and this may have permitted both storms to advance southeastward along the eastern and northeastern periphery of the anticyclone.

No storms accompanied by winds of exceptional force occurred along the coast until the night of the 27th, when south winds of gale force were reported from the Washington-Oregon coast. Storm warnings were displayed at northern ports on the morning of the 27th.

As typifying the requests for meteorological information that come to a district forecast center, the following is an example. In the Imperial Valley large quantities of cantaloupes are raised for shipment, largely to eastern markets. The output this year, it is stated, will reach 15,000 carloads. On the 14th of May the following telegram was received:

ELCENTRO (IMPERIAL VALLEY), CALIF.,
May 14, 1925.

OBSERVER, U. S. WEATHER BUREAU,
San Francisco, Calif.

Recent high humidity with fairly warm temperatures has resulted in serious outbreak of mildew on cantaloupe vines. Unless low humidity or temperatures exceeding 100° occur in next two days growers will have to spray. Growers anxious to know whether you forecast low or high humidity or very hot weather for Imperial Valley in next two or three days. Wire reply.

(Signed) E. GARTHWAITE.

The following telegram was sent in reply:

Neither very high temperatures nor very low humidity indicated next two or three days. Advise spraying.

BOWIE.

Conditions that followed were favorable to the spread of mildew.

There were no frosts of consequence during the month, except in the more northern part of this forecast district. The fruit belts of Washington and Oregon were kept advised from day to day as to what to expect in the way of low temperatures with reference to the firing of orchards.

No general fire-weather warnings were issued during the month, although on several occasions when low humidity was expected advices to exercise caution in slash burning were issued for Washington and Oregon.—*E. H. Bowie.*

RIVERS AND FLOODS

By H. C. FRANKENFIELD

Excepting that in the Rio Grande of Texas, no floods of consequence occurred during May, 1925. The rise continuing from late April in the Sulphur River was attended by comparatively small crop losses and a saving, through Weather Bureau warnings, of property valued at about $10,000; while in the Trinity River flood no movable property was reported lost and the saving of property through the warnings was estimated at $22,500. Prediction of both floods was timely and accurate.

In the more severe rise in the Rio Grande, which resulted from excessive rains over southwest Texas on May 27, 28, and 29, flood stage was passed at all gaging stations on the river, six lives were reported by newspapers to have been lost, bridges were washed out, levees broken, houses destroyed, livestock drowned, and crops ruined. Total reported losses were as follows: Bridges and tangible property, $30,000; livestock, $15,000; growing crops, $20,000. No estimate has been received of the value of property saved through Weather Bureau warnings, but these were accurate and issued well in advance of the flood and are known to have resulted in a large saving of movable property and livestock.

The spring rise in the Colorado River passed off without reported damage, flood stage occurring at only two stations.

The spring rise of the Columbia River was still in progress at the close of the month. Report thereon will be made in the MONTHLY WEATHER REVIEW for June, 1925.

Rivers of the Mississippi system were unusually low for the time of year, but as this condition continued during the succeeding month more detailed mention thereof will be deferred until the June report.