

### How Weather is Forecasted

MANY people have an idea that there is something mysterious and occult about the work of the Weather Bureau in forecasting the coming of storms, frosts and floods. Not a few think that the observers must get their data by reading the planets, the stars and the moon. As a matter of fact the forecaster of the Bureau foretells the coming of disturbances in a business-like way, very similar to that in which a man who has ordered a shipment of goods would estimate the date of its arrival.

Suppose a business man has ordered a carload of pineapples from the Hawaiian Islands. He would know the average time it would take the steamer to make the trip to the Pacific port, the average time for unloading and loading into refrigerator cars, and the average number of days to be allowed these cars for their trip across the continent to New York. His estimate, however, would be subject to error because the steamship might be delayed by fog, or the cars might meet with an accident.

Storms, like pineapples, as a rule, do not originate in the United States. They come to us, some from the Philippines, Japan, Siberia, Alaska, Canada or the Gulf of Mexico. The Weather Bureau gets cable, telegraphic or wireless notice of a foreign storm. Station after station, or vessel after vessel reports the storm's arrival in its neighborhood, so that the general direction and rate of progress can be determined very early. In fact the arrival of some storms can be told ten days in advance.

The forecasters watch for the region of low barometer which is the storm center around which the wind blows. This whirl or eddy moves bodily forward with the general eastward drift of about 650 miles a day in our latitudes. As the lines of equal pressure (isobars) around the low center crowd closer together, the winds attending the storm increase in force. The forecaster determines the direction of movement of the storm and its velocity.

When weather disturbances are reported, the forecasters know from experience about how long it will take them to reach our Pacific coast, and then how long after they will reach the Atlantic coast. For example, if a storm coming from Siberia drifts eastward around the North Pole and reappears in Alaska, it should appear in Washington and Oregon in about two days; should get to the Great Lakes in six days and to the Atlantic coast in seven or eight days.

Unexpected conditions may delay storms or divert them from the straight track just as a refrigerator car may be thrown off its schedule or be shipped by accident on a wrong road. Some of these storms deplete themselves by running into regions of high barometer which are of greater magnitude and extent than however, travel completely around the world.

To keep tab on cold waves that come into the United States from Canada and Alaska, the Weather Bureau studies the Canadian weather reports. England sends reports from Iceland, the British Islands and Continental Europe, and daily reports come from St. Petersburg on the condition in Russia and Siberia.

The same businesslike system used in tracing the track of a storm is applied in determining the arrival of frosts.

Flood forecasts are made in much the same way. Information as to the amount of rainfall at the head waters of streams that cause floods are covered by telegraphic reports sent by local observers. As this rain reaches the main channel, the height of the water in the channel is determined by successive gaging stations. Past records establish how much a height, say of 20 feet at Dubuque, Iowa, will produce at Davenport, another station 80 miles down the Mississippi. This plan is followed all the way down the river, and at each point full allowance is made for the effects of water from tributaries, and from additional and local rainfall.

As a result of these observations in the recent flood, the people of Calif had warning a week or ten days in advance.

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### WANT MORE POPULATION

(By Associated Press to Coos Bay Times.)

LONDON, Feb. 17.—That the Government at Washington is making preparations for increased emigration from Europe to the Pacific coast of the United States on the opening of the Panama Canal, is indicated by a request to American consuls in Europe to furnish the Department of Labor with reports of the plans being made by transportation agencies to handle the increased traffic. The consuls have also been called upon to supplement the work of special emigration commissioners who have visited Europe lately, with reports of the quantity and quality of the expected immigration.

European representatives of American railroads welcome this action on the part of the American Government as indicating the beginning of a movement at Washington to encourage the high type of emigration which England and Germany are making every effort to divert to their own colonies. These governments offer every inducement to steamships and railroads to handle this traffic while the agents of American transportation concerns complain that the American Government adopts a negative policy, which while effectively shutting out many undesirable immigrants, also discourages the solid type of immigrant for whom there is still much room in the United States.

Alexander Jackson, who has represented a large American railroad system for many years in Europe has suggested to the local American consulate that the United States prepare booklets setting forth the agricultural and business possibilities of the various states for free distribution in Europe. He believes that such booklets backed by the government imprint would lead to a great increase in the numbers of immigrants who are looking for farms or business openings rather than for ordinary jobs.

### NEW USES DISCOVERED FOR PORT ORFORD CEDAR

A Portland paper says: In addition to all the other multifarious possibilities that lie in Oregon's vast and varied timber supply, a new one has just come to light. Howard B. Oakleaf, head of the timber products division of the forest service, has just received an inquiry from a Jamestown, N. Y., laundry appliance manufacturer as to the respective qualifications of Port Orford cedar for the outsoles of washing machines and for wooden tubs. Like a great number of other Eastern woods, the supply this manufacturer is using, is giving out, and he is looking to the West. Port Orford cedar grows abundantly in Coos and Curry Counties.

Girls' Clubs, formulated by the Young Women's Christian Association. It is planned to bring the young girls directly into the feminist movement, make progress for self expression and enlist their aid in the solution of those problems which the thinking women of the day are trying to solve for them, but which seems can never be solved without their help. They will study citizenship, a home course, a health course and an efficiency course, which will include English, travel, books, pictures and parliamentary law. They will also take up social service work.

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PANNIERS AND RUFFLES ADD WIDTH TO THE HIPS

Just as we had settled down to the straight silhouette along comes the tunic, the pannier and ruffles without number with their added width to the hips to upset it all.

All of these will be worn the coming season: in some instances the pleated, coat-tail or ruffle will be attached to the blouse, but more often it is a part of the skirt.

Sashes and belts also will continue popular and there are many new ribbons and silks designed almost entirely for this purpose. There are Roman stripes, plaids, brocaded effects in bright Chinese colorings and dark, rich looking velours. These sashes are wide, low and loose.

In numbers S127-S151 crepe meteor is used for the skirt with the bodice and pannier ruffles of flowered crepe de Chine.

The wide girdle is made of a quaintly patterned silk charmingly colored. This skirt shows the peg-top design with the addition of a double ruffle which may also be draped pannier fashion.

To copy this frock in size 36 the blouse (S127) requires 2 1/2 yards of 36-inch material; the skirt (S151) may be made in size 24 with 4 1/2 yards of 36-inch material.

Number S122 shows an attractive new sleeve, a short full, pointed tunic and a smart vest.

A figured chiffon is combined with a charming skirt.

This frock may be made in size 36 with 5 1/4 yards of 36-inch material.

Number S127—sizes 34 to 42.  
Number S151—sizes 22 to 32.  
Number S122—sizes 34 to 42.  
Each pattern 15 cents.

To obtain either pattern illustrated fill out this coupon and enclose 15 cents in stamps or coin. Be sure to state number of pattern and size, measuring over the fullest part of the bust. Address Pattern Department, care of this paper.

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### S. S. REDONDO

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