

The same sort of invasion of marine life has also been reported from the Mississippi Delta.

Partial blame for a decline in candy sales in July was attributed by the Department of Commerce to the heat. Confectionery sales were announced as \$16,713,227, compared with \$19,415,990 for July, 1929.—A. P.

### SEVERE FALL THUNDERSTORM IN NEW ENGLAND

A thunderstorm, or more probably a series of thunderstorms, unusually severe for so late in the season, formed on the night of October 17 along a line extending from New Haven, Conn. to Burlington, Vt. The rainfall apparently increased in intensity from south to north, ranging from 0.38 inch at New Haven, and 0.77 inch at Stockbridge, Mass., to 1.02 inches at Burlington, Vt. In many places it was the first appreciable rainfall since the middle of September. The lightning was extremely vivid and in many places damaging. The City of Pittsfield was plunged into darkness for half an hour by lightning damaging the transmission line supplying the city. At New Haven the 75-foot steeple of the Pilgrim Congregational Church was destroyed by fire after being struck by lightning. In Berkshire County, Mass., the storm was accompanied by a high wind that blew down trees in several places.

Large turreted alto-cumulus and cumulus clouds, indicative of a superadiabatic lapse rate in the free air, and an almost infallible sign of coming thunderstorms, were observed in the early afternoon at Springfield, nine hours prior to the storm. Also in the early evening a strong south wind was blowing on the hills of the eastern Massachusetts highland, overriding the cool quiet air in the lowlands. The contrast and the chilling of the bottom of this warm wind brought fog and drizzle at Worcester in the early evening.

### REPORT OF THE CHIEF OF THE WEATHER BUREAU, 1930

A report of the work of the U. S. Weather Bureau during the fiscal year ended June 30, 1930, by C. F. Marvin, Chief of Bureau, has just been released. The drought of 1930 and expansions of service in aid of aviation were chosen for particular discussion. The drought up to Aug. 31 is treated in considerable detail and compared state by state and month by month with the previous outstanding droughts of 1881, 1894, 1901, 1911, 1916, and 1924. Part of the report "cycles and seasonal weather forecasts," is reprinted below.

### CYCLES AND SEASONAL WEATHER FORECASTS

The occurrence of any notable weather event, such as the drought of the summer of 1930, is always made the occasion for discussion of the possibility of predicting such happenings sufficiently far in advance to permit of steps being taken, if indeed any such are possible, to lessen the economic loss which is bound to result so long as they arrive unheralded.

Another even more futile imagination is that these untoward happenings can be caused or suppressed by man himself. For example, many letters are received urging that by the use of explosives and aerial bombardment, we can cause plentiful rain. Curiously enough, another