A Science Service Feature

Released upon receipt
but intended for use
June 18, 1931

? WHY THE WEATHER ? Mailed June 11, 1931

By Charles Fitzhugh Talman,
Authority on Meteorology.

EXCESSIVE RAINFALL

Statistics of what the meteorologist calls "excessive rainfall" - i.e., rain falling at an unusually rapid rate - have been collected in most civilized countries. In the United States rainfall is considered excessive if the rate of fall equals or exceeds one inch an hour or 2.5 inches in 24 hours.

Such data are indispensable to engineers in connection with the building of sewers, reservoirs and dams, and in flood-protection work. Sewers must be made large enough to carry off the "storm water" from the heaviest showers that ever occur in the locality, while, on the other hand, in the absence of statistics of excessive rainfall, much money might be wasted in making them unnecessarily large.

A great flood raises questions as to the intensity of the rainfall that caused it and the frequency with which similar downpours may be expected to occur in the drainage area concerned. The unprecedented floods in the Ohio Valley and adjacent regions in March, 1913, led to an exhaustive study of the records of storm rainfall in the eastern United States on the part of the engineers of the Miami Conservancy District. Their report showed that of 2,641 storms investigated, 78, which covered areas of 500 square miles or more, had a rainfall amounting to at least 20 per cent. of the normal rainfall for an entire year.

SCIENCE SERVICE
21st and Constitution Ave.
Washington, D.C.