and which the writer believes is in whole or in part of the same age as the older loess on the Illinoian.

The older loess on the Illinoian is post-Illinoian, pre-Peorian loess in age. It was deposited after the development over wide areas, chiefly by chemical weathering, of gumbotil more than three feet thick on the Illinoian till. Furthermore, there was sufficient time after this loess was laid down for it to have been leached in places to a depth of several feet before the deposition of the Peorian loess which as stated is but little younger than the Iowan till. The interval between the time of deposition of the Illinoian till and the deposition of the Peorian loess was of sufficient duration to account for (*a*) the weathering of the unoxidized and unleached Illinoian till to gumbotil more than three feet thick; (*b*) the deposition of a loess on the gumbotil and eroded surfaces of Illinoian till, and (*c*) the leaching of this loess in places to a depth of several feet. In contrast, the Peorian loess was deposited very soon after the deposition of the Iowan till. These facts indicate clearly that the Iowan till is much younger than the Illinoian till.

Regardless of whether or not the post-Illinoian, pre-Peorian loess is Loveland in age it "adds new evidence to that which has been presented for many years by several geologists in support of the view that the Iowan glacial stage is much younger than the Illinoian glacial stage."

The writer discussed fully the relative ages of the Iowan and Illinoian drift sheets in a paper in *American Journal of Science,* December, 1928.

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PECULIARLY SHAPED HAILSTONES

ON Saturday afternoon, June 15, at about 3 o'clock, what may have been considered a typical semi-cloudless sky became suddenly overcast from the southwest followed by a slight shower of unusually large drops which soon were accompanied by occasional hailstones. The Weather Bureau's forecast was "increasing cloudiness." Within a few minutes the rain turned to hail. It was not a heavy hail-storm; no damage was done to the flowering shrubs in our garden—a few lily-pads were pierced—yet in a space about seventy-five feet square the lawn was strewn with the most grotesque-shaped hailstones that I ever had chanced to see. I picked up hurriedly four specimens, the largest of which I sketched from memory (Fig. 1). It was about 6.5 cm long, 2 cm thick and about 3.5 cm wide. The "stone" seemed to be made up of an agglomerate of a dozen or more smaller stones frozen together. The nucleus of the separate stones could readily be distinguished. The mass was flinty hard, as freshly frozen ice, and except for the nuclei was clear.

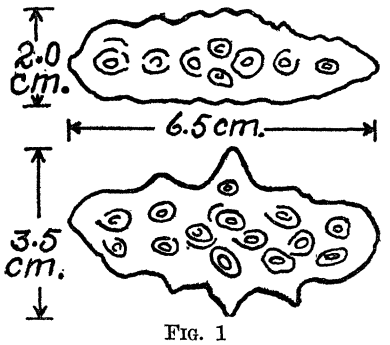

FIG. 1

The hail-storm was not characterized by large hailstones, the largest single-nuclear stone that came to my notice in the garden was but 1½ to 2 cm in diameter. I have witnessed many hail-storms of much greater severity and of longer duration, but never saw the stones frozen in agglomerates, especially of such size.

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MORTALITY STATISTICS AND THE LENGTH OF LIFE

PROFESSOR FORSYTH'S paper in SCIENCE, July 26, directly contradicts the prevalent opinion on the subject discussed. Mortality statistics are not a satisfactory basis for generalization, and the probability that the author's conclusions may have been influenced by the surface aspects of the figures referred to is suggested by several of his statements.

The great reduction in infant mortality and in deaths from communicable diseases in recent years has postponed death, in such cases, to later dates, and the lives thus prolonged are usually sustained by diminished vitality. It is reasonable to expect that the *average* general health of the community has been reduced, and the *average* death-rate during subsequent years increased, by these extended lives. Consistently, if a substantial number of these previously short lives has been extended to the forties and fifties, the *average* age, at death, of all persons passing the age of forty will be reduced. The ratio of the number of persons reaching the age of fifty to the total population will also be reduced.

The increasing mortality due to certain organic diseases is frequently referred to in current discussions as indicating a greater susceptibility to such diseases, induced by changes in our manner of living or by the devitalizing influence of organic stresses incident to more strenuous activities. There is absolutely no foundation in fact or experience for such beliefs. More people escape death by croup, diphtheria and smallpox than formerly, but, as all must ultimately die,