

While awaiting the discovery of new evidence tending to establish a glacial man in America, I have undertaken to analyze the old testimony as embodied in the writings of investigators of the American questions, and short papers covering part of this ground will soon appear. I had not anticipated this present diversion, however, as I had thought of Mr. Haynes only as a convenient verifier of that large class of unfortunate "paleoliths" whose pedigree happens to be shaky. My work was intended to bear only upon that of real investigators, such as Abbott and Cresson and Metz, who have for years sought earnestly, if not always effectively, for the evidence that is to make symmetric the culture development of two hemispheres. Those writers who undertake to use, and defend the evidence collected by, these students, will do well to remember that they shine by borrowed light, and should for much-vaunted modesty's sake, if not for science sake, keep well within reach of its limited ray.

If my "rash" assertions, hitherto made, respecting the nature of the testimony relied upon to establish a glacial, paleolithic man in America, lead finally to a just estimate of the real evidence and to the establishment of a firm basis for future operations in this great field, I shall feel amply repaid, notwithstanding the storms of sharp words and the streamlets of doggerel the publication of these views seems destined to call forth.

W. H. HOLMES.

Washington, D.C.

The Neanderthal Skull.

In reference to Professor Haynes's observation in *Science*, Feb. 24, p. 107, that, not having seen the report of Professor Virchow's address, he could not judge "how far Dr. Brinton may have been misled by his authorities," I beg permission to furnish both him and other readers of *Science* the opportunity of judging, by quoting Virchow's precise words about the place and surroundings of the Neanderthal skull. They are as follows:—

"Für die Beurtheilung dieser Gebeine ist es von Wichtigkeit zu erwähnen dass dieselben aus keiner Höhle herstammen; auch hat man sie nicht an ihrer Lagerstätte aufgefunden, niemand hat sie ausgegraben, sie sind in Bezug auf die geologischen Verhältnisse, unter denen sie sich befanden, nicht Gegenstand der Beobachtung gewesen. Sie wurden gefunden in einer Schlucht, die zunächst eines Bergabhanges sich gebildet hatte; durch diese Schlucht waren Wasser herabgekommen und hatten allerlei herausgespült; wo die einzelnen Stücke früher gelegen hatten, wusste niemand. Darunter befanden sich auch das Bruchstück des Schädels."

Professor Haynes refers to the finder, "Dr. Fuhlrott" (evidently meaning Fullroth). This person's statements are seriously questioned by Professor Virchow, apparently from information derived from Mrs. Fullroth, who imparted it in unsuspecting innocence of the grave decisions involved; as the Professor gleefully narrates. Virchow's earlier report will be found in the *Verhand. der Berliner Anthropol. Gesell.* for 1872.

D. G. BRINTON.

Philadelphia, March 1.

Aerial Bubbles.

THE account of "snow-rollers" in your recent issue recalls an atmospheric phenomenon which was beheld here by two witnesses of unimpeachable character several years ago, of which no account has ever been published. Towards sunset, late in April, 1886, on a warm, thawing day, the snow rapidly disappearing, two men, Capt. John E. Hetherington and Mr. Marcus Sternberg, as they rode down the long hill towards this village from the east, saw what appeared to be innumerable spherical bodies floating in the air like soap-bubbles. Both men saw and wondered at the appearance for some moments before either spoke. Capt. H. then said, "I wonder whether I am dreaming?" The other rubbed his eyes and echoed the sentiment. "Well," said the captain, "I wonder if you see what I see; what do you see?" They questioned each other, and both agreed as to their impressions. An orchard lay along the lower and northwesterly side of the road, and all in among the apple-trees were thick, gently-de-

scending multitudes of these bubbles, pretty uniform in size, say, 8 or 9 inches in diameter, apparently; none less than six; no small ones being observed.

The two observers state that they carefully fixed their attention on particular bubbles, in order to compare notes, and saw them seem to rest on the bough of a tree, or the top board of the fence, and then gently roll off and disappear or go out of sight. The sun was sinking and dropped below the opposite hills as they reached the foot of the long descent and entered the village, and the appearance came to an end. But up to this time the air seemed to be filled with these transparent floating spheres. The position of the observers with regard to the light seems to have made some difference as to seeing well this or that large aggregation or swarm that one or the other pointed out. The bubbles were highly colored, iridescent, gave the same sort of reflections as soap-bubbles, and apparently vanished individually in much the same way. All these points I have ascertained by repeated conversations.

Captain Hetherington (Lieutenant Colonel by merit) is widely known for his extensive apiaries, the largest in the country, and is an exceptionally good observer. Mr. Sternberg also is a gentleman of intelligence and careful observant character.

The only theory I have been able to form to account for such a phenomenon is, that if a certain kind of dust floated off in the air, each particle composed of some sort of saponaceous envelope, enclosing a highly expansible centre or core, like ammonia,—particles of this character expanded by the warm air, and at the same time moistened, might, under very nice conditions, produce such an effect.

I will add, *apropos* of snow-rollers, that Mr. Sternberg states that, years ago, he once saw, in Schoharie County, what he called "auger borings" of snow; which he described as spiral rolls, about two inches in diameter, and broken into fragments of various sizes, like the borings turned out by an auger.

HENRY U. SWINNERTON, Ph.D.

The Parsonage, Cherry Valley, N.Y.

Hardy Towhee Buntings.

HAVING noticed the effect of the recent severe weather on the crows near Washington, which Dr. Ridgway gives an account of in *Science* of Feb. 10, I was greatly surprised to find the towhee bunting (*P. erythroptalmus*) evidently wintering here. During the second week in January last, I observed two individuals and heard the notes of others. As the towhee seems to get most of its food upon the ground, its presence during deep snows and severe cold rather surprised me. The authors of the U. S. National Museum Bulletin, No. 26 (*Avi Fauna Columbiana*), say of the towhee: "Chiefly a spring and autumn migrant. A few breed with us, but none remain during the winter." It usually makes its appearance here in the first warm weather in March, and I have found it to breed quite abundantly in suitable localities. During the same cold snap I picked up numbers of dead goldfinches, juncos, and native sparrows, evidently victims of the weather. The turkey vultures (*C. aura*) also suffer from the cold and are sometimes found unable to fly, their plumage being coated with snow and ice. In order to prevent the extermination of the bob-white during the past winter, a Virginia sportsman's club furnished quantities of wheat-screenings to any persons who would place the same in localities frequented by the birds.

ALBERT B. FARNHAM.

Bennings, D.C.

The Speech of Children.

THE paper in *Science* of March 3, having the above title, by Mr. A. Stevenson, has much interested me. In the fifth paragraph, on page 120, the author says: "The child apparently regarded himself only as object and not at all as subject." This conclusion is reached by the child's use of the third person in speaking of himself. It seems to me inconceivable that a conscious being should regard himself other than as subject. The peculiarity of expression—a common enough one in children—I believe to exist, first, because the child hears himself constantly referred to