

rhinoceros, an animal allied to the hippopotamus, an extinct species of horse, and a species allied to the camel and resembling the *Meg-a-lo-me'-ryx* of Leidy; all these species, so far as we know, are peculiar to the deposits under the lava." As to the plant remains found in the same beds, Dr. Newberry reports that they are not older than the Miocene, and most resemble species found in the later European Tertiaries. For myself, I hardly think this evidence is fully conclusive on the Pliocene age of the deep placer gravels with human relics. I feel persuaded that the great lava eruption was connected with the enormous load of ice which once covered the regions farther north and east; and if so, they occurred probably while the glacial epoch was at its meridian. Mr. Boyd Dawkins thinks the evidence of Pliocene man in California is "unsatisfactory" because almost no species of Pliocene mammals have survived to the present, and the strong presumption is afforded that man is not an exception.

But in any event, American man existed in the Glacial Epoch—not, of course, in the midst of a continental glacier; but in some favorable region which glaciation did not reach. Much of the "far west" was suitable for human occupation at the time. Great lakes existed in Oregon, in Utah, and Nevada; and they were populated by a molluscan fauna not less exacting in its requirements than the types accompanying man in the present epoch. In eastern America, also, some human relics have been found which, as is thought, argue the presence of man in the Glacial Epoch. Dr. C. C. Abbot has described some stone implements in ancient gravel near Trenton, New Jersey, and the announcement of Glacial man has been proclaimed; but I agree with Mr. H. C. Lewis, that these gravels are post-glacial. Stratified gravels of the Drift belong to the epoch of the Champlain floods. The deposits of the Glacial Epoch, with local exceptions, are unstratified, and in the nature of "till." The Trenton gravel appears to be a river-drift deposited during the flooded stage of the Delaware.

Human implements in river-drift gravels are widely known