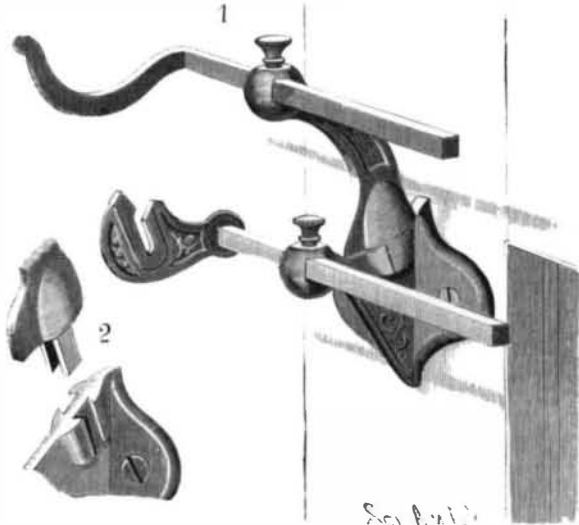


CURTAIN OR SHADE FIXTURE.

The handy contrivance shown in the accompanying cut has recently been patented by Mr. Oliver H. P. G. Spencer, of Mount Carmel, Illinois. The object of the invention is to provide a fixture consisting of two separable brackets, one for supporting the shade roller and the other for supporting a curtain pole, and to arrange the brackets so that the curtain will fall outside and clear of the shade roller. The device also makes it possible to utilize a roller or pole of greater or less width than the window, without cutting or building up the former. The fixture consists of four brackets, two for each side of the window, the lower



SPENCER'S CURTAIN OR SHADE FIXTURE.

bracket being screwed to the window frame and the upper bracket being slidably adjusted on the projecting web of the lower bracket by means of two tongues, engaging corresponding grooves which are provided for the purpose. The projecting web of the lower bracket terminates in a knob, which is provided with a thumb screw and is perforated with a square horizontal hole, in which a rod, which carries at its end a curtain fixture adapted to receive a trunnion of the curtain roller, is fitted to slide horizontally. As each bracket on each side of the window is similarly furnished, it is evident that any length of shade may be used, the curtain fixtures being adjusted accordingly in the brackets. The upper bracket is similarly provided with a perforated knob and a thumb screw, the rod which it carries being provided with semicircular hangers, adapted to receive the curtain rod. These brackets curve upward and outward sufficiently to carry the curtain rod entirely clear of the shade roller.

Tattooing by the Maori Race.

Major Gen. Robley is the author of a singularly curious book, "Moko; or, Maori Tattooing." The New Zealand war of 1864-66, in which the author served, gave him his opportunity of studying on the spot that now almost extinct art. The expression, a well chiseled face, meant one thing to a Christian sculptor and another to a Maori decorator. The work contains more than 150 illustrations of designs and tattooed heads. There is no denying the fact that the Maoris could appreciate the beauty of lines and curves. One witnessing the really striking examples of their architectural ornamentation exhibited in South Kensington cannot but regret that they did not work less upon the human skin and more upon some other material. In Gen. Robley's book, which is to be a two guinea quarto, beautifully printed, the history of the art is sketched and the various processes explained. The second section of the book deals with preserved heads, many of

which, dating from 1770, are kept in European museums. It seems there are few, if any, such heads later than 1831, "when the traffic in Maori heads ceased." An illustration entitled "Preserved Heads of Maori Warriors Arrayed in Robes and Displayed by their Conquerors," is singularly lifelike. It betrays at least a rudimentary sense of statuesque drapery.

IMPROVED WASHING MACHINE.

Some improvements in the method of mounting the plungers of washing machines have been designed and patented by Mr. William Powe, of 1327 Richard Street, Vancouver, British Columbia, Dominion of Canada. By reference to the accompanying engraving, it will be seen that one arm of a U-shaped bar is rigidly secured in a casing, mounted at the top of a standard, which is secured on the bench, as shown. The ends of both arms of the bar are secured by a link which is seated in notches formed on said ends. Freely movable on the upper arm of the bar is an angular sleeve, carrying a vertical post, on which a sleeve is rotatably mounted. The lever of the washing machine comprises a handle and two parallel bars, whose further ends are pivoted to the lower end of the last mentioned sleeve. The shaft of the plunger is provided with a sleeve which is pivoted at its center to the parallel bars of the horizontal lever, and at its upper end to one end of a parallel link, the opposite end of which is pivotally connected to the top of the rotatable sleeve, on the vertical post before mentioned. The plunger is of the common funnel shape. By means of this construction the plunger will be capable of a universal movement, and, moreover, its support is independent of the tub, so that the latter may be taken from the bench, without interfering with the plunger and its supporting mechanism.



POWE'S IMPROVED WASHING MACHINE.

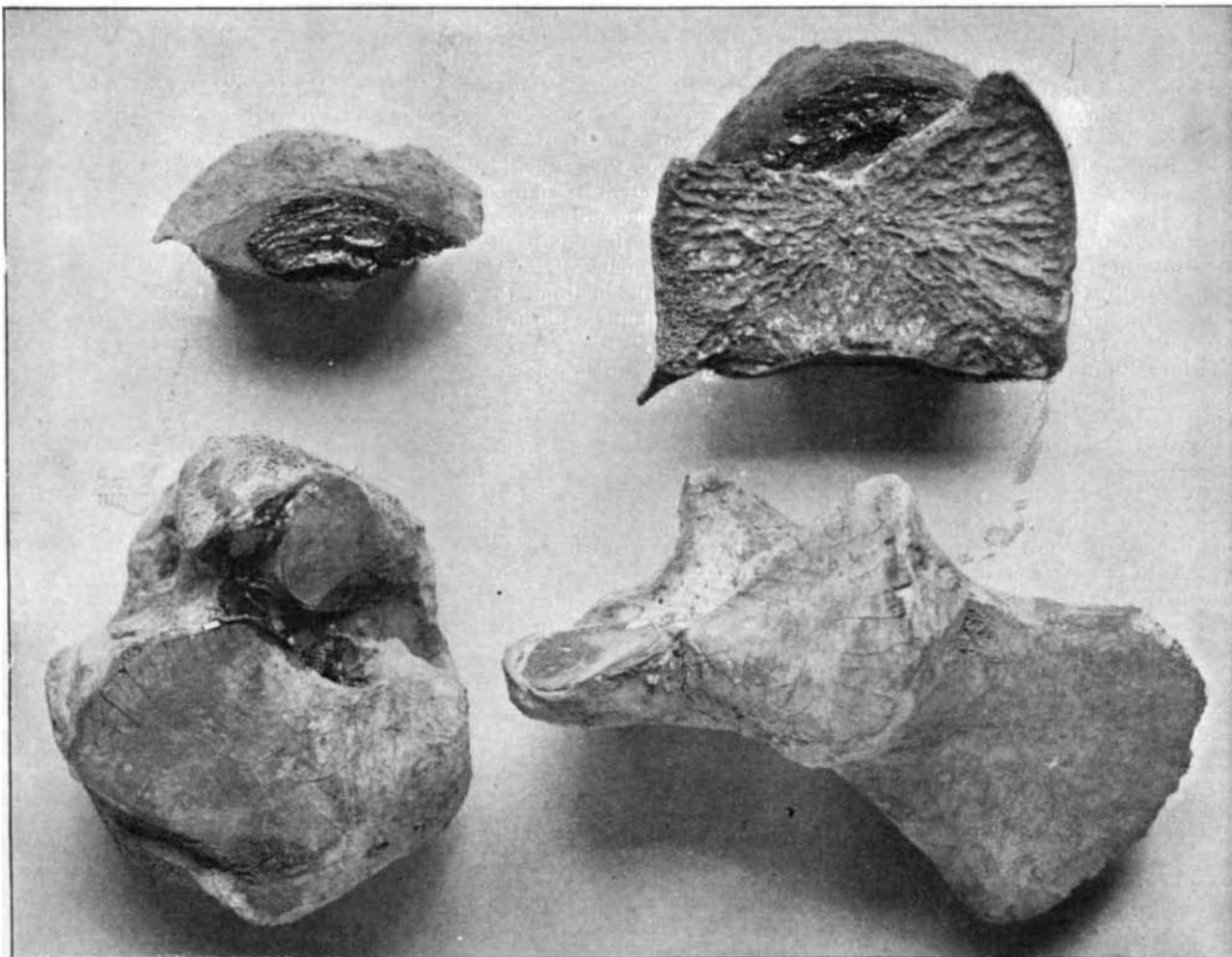
CAVE EXPLORATION IN THE EASTERN UNITED STATES.

BY HENRY C. MERCER.

To learn that the remains of Pleistocene man have been abundantly found in the caves of Europe, that equally significant remains of later savage, barbarous and civilized peoples have been similarly discovered in the caves of Europe, Asia and Africa, and that the remains of the Indian and the recent white man have been found in caverns in North America, warrants the supposition, nowhere disallowed by past investigation, and valuable as an hypothesis, that primitive peoples generally throughout the world have left traces of their presence upon the floors of accessible caves. In the subterranean floor deposits of the new world, therefore, we may suppose that the problematic existence of Pleistocene man might be soonest and easiest demonstrated, while with hardly less ground we may urge as valuable testimony in the American region the absence of such remains in significant underground shelters. Not unreasonably such absence, occurring invariably at these immemorial halting places of men and ani-

mals, might infer that Pleistocene man had never existed in the adjacent regions. By this course of reasoning and investigation the University of Pennsylvania has sought to solve definitely the question first to attract and last to puzzle American students—How long has man existed in the new world? Striving to limit the speculations of archæologists, the work has proceeded by degrees to reconcile with geology their study of pre-Columbian peoples, which, fascinating as it is, has lacked thus far subdivisions, landmarks and starting point, while an effort to eliminate, through the investigation of significant caves, one region after another from the field of search, has sought to narrow the area of possible discovery from the point of view explained. Having shown on the one hand that certain caverns like the fissure at Port Kennedy (right bank of Schuylkill River, three miles below mouth of Perkiomen Creek, Montgomery County, Pa.), containing in large quantity the remains of Pleistocene animals without relics of man, are geologically ancient, on the other hand a fact of much significance has been demonstrated for the first time, namely, that a considerable number of other caves are modern, since their floors, well supplied with the first refuse of Indians and later white men, below which remains of geologically older peoples would not have been lacking in Europe, have failed to reveal any relic of Pleistocene man.

In these several instances the geologically modern remains (human) and the geologically ancient remains (animal) have lain apart in distinct caves, and hence less available for comparative study, but the recent expedition to Tennessee, resulting in the examination of three caves in which the old and new deposits lay in juxtaposition, has enabled us to push the question farther by studying the relation between the ancient and modern strata where, at their point of contact, it was most significant. More broken and scattered even than at the remarkable tomb of extinct animals at Port Kennedy were the remains of the tapir, peccary, bear, and small fossil rodentia at Zirkel's Cave (left bank of Dumpling Creek, about five miles above its mouth in French Broad River, Jefferson County, Tennessee), visited by Professor Cope in 1869. Dislocated as before after the flesh had rotted from the bones, crushed by a force which had split into fragments the hard teeth, the remains had found their way into a mass of clay mixed with lime, which at one time filled the cave. Hardened finally into breccia not easily broken with the pickax, this bone-bearing earth had disappeared at many



Bones of the fossil sloth (*Megalonyx*), astragalus calcaneum and epiphysis of vertebra fresh in appearance and with remains of attached articular cartilages found associated with the refuse of porcupines and cave rats in a dry passage 900 feet inward from the entrance of Big Bone Cave, Van Buren County, Tennessee, May, 1896. Two-thirds natural size.

BONES OF THE FOSSIL SLOTH.