Scientific American.

WHITE INDIANS OF NEW MEXICO.

BY COSMOS MINDELEFF.

For more than a hundred years the question whether there existed in America a tribe of white Indians has been agitated, and more or less positive statements from learned men can be quoted on both sides. That the legend of a white race had a basis in fact is proved by the photograph which is published herewith, and which shows, not a tribe, but six individuals, living in the Pueblo of Zuñi, New Nexico. Their existence, however, is known to very few, and even of those who have visited the village not many have seen the white Indians, for as a rule they keep themselves out of sight. The history of the legend is interesting.

From the earliest times more or less definite rumors about white Indians have been current. In 1791 the Reverend Doctor John Williams published a treatise on the subject, which is now very rare, although the impetus which he gave the inquiry still survives. The purpose of the publication was to start a subscription fund, to be devoted to the exploration "of the wild parts of America beyond the Ohio River," where the author was sure the long-sought white men would be found. In his own mind there was not the slightest doubt that these whites were descendants of Prince Madoc of Wales, who, according to the old Welsh legend, left his native country soon after 1170 A. D., on account of family dissensions, and sailed out to the West, leaving Ireland on his right hand.

According to the ancient bards. Prince Madoc returned in the course of time with glowing accounts of a new country he had discovered, and gathering his adherents about him he set sail again for the far West, to the land which he had found, and was never afterward heard of. Dr. Williams contended that the white Indians were the descendants of these twelfth century Welshmen, and whatever may be thought of his conclusion his argument was certainly worth consideration. He cited the many reports concerning these Indians then current, coming from various parts of the American continent, particularly the account of a man named Rimington, a native of England, who had met the white Indians at a grand trading meeting, or Indian fair, at the forks of the Ohio. He was told that they came from a remote district, west of the Mississippi. Rimington's companion, a Welshman, claims to have spoken to these Indians in his own language. It was said also that these Indians had a book, which they venerated highly, but were unable to read.

More than sixty years later, when the Pacific Railroad surveys across the continent were made, the story cropped out in another form, but the white Indians were definitely located at the Pueblo of Zuñi. In the reports of that survey, published in 1856, a description of one of these Indians is given, together with a list of words, which were said to be practically synonymous

in the Zuñi and Welsh languages. No explanation of the presence of white members of the tribe was attempted. About 1877 J. H. Beadle, a newspaper correspondent, visited Zuñi. He mentions a book which those Indians had, and which they regarded with great reverence, although they could not read it.

There can be no doubt that the white Indians at Zuñi are albinos. There are four others at the Moki villages and sever al scattered among the other Pueblos. In dress, manners, customs, language, they are like their fellows, but their complexion is very

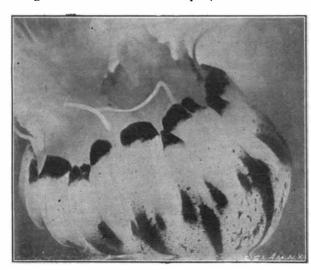
fair; they are, indeed, much whiter than the average white man who has lived much in the open air. Their hair is a tawny yellow, instead of the jet black which characterizes the Indian. Their eyes are so weak that they have to keep them closed in the sunlight, as shown in the photograph. This is due, doubtless, to the absence of coloring matter in the iris. As the skin lacks that protection also, these people suffer very much from sunburn, where the regular Indian is almost as immune as a negro. Their eyelids and lips are always sore, and it is probably on account of their dread of the sunlight that so few travelers have seen them.

To those who have seen these curious freaks they give the impression at first that they are Irishmen dressed as Indians, for their faces have a decidedly Celtic cast. The only way, however, in which they differ from other members of the tribe is in the absence of coloring matter in the skin and hair. The cause of this albinoism has not been determined; it may be due to close intermarriage within the family, an inevitable result of the social system of the Pueblos, and their organization under the clan or gens system.

SOME PACIFIC JELLYFISHES.

BY CHARLES F. HOLDER.

In making the trip from San Pedro to Avalon, or from San Pedro to San Diego, into the warm waters of the great black current of Japan, the traveler is



PHOTOGRAPH OF A JELLYFISH, TAKEN AS IT REACHED THE SURFACE.

charmed with the display of large jellyfishes, particularly abundant in March and April.

The form most conspicuous, both for its size and beauty, is the one shown in the accompanying illustration, which was photographed as it had just reached the surface. The jellyfish was eight or ten feet in length, consequently the opalesque disk alone is seen, splashed with markings of a deep lavender. The picture has a peculiar interestinasmuch as it is the first ever shown of this jellyfish, and, in all probability, the first successful photograph of a living jellyfish of any kind. The tentacles of this specimen stretched away a whirled fluted mass, tinted a rich pink, folded flounced and fringed like twisted lace. Depending from the disk were numbers of long opal-hued tentacles, four only being shown in the photograph.

This specimen is a pigmy compared with some ob-

statica. So far as the observation of the writer goes, it is the most rapid in its movements of all the jellyfishes. When the specimen mentioned was placed in a tank, it darted about with all the rapidity of a fish. In a short time it learned apparently that rapid movement would not avail and slowly swam about with fanciful, lacelike adornments and pendants, resembling an inverted thermometer more than anything else; for there is a central axis, which calls to mind the tube of the thermometer—it is elongated into a bulb at the upper portion and is filled with gas at the will of the animal.

This axis may be four or five inches in length. About it are numbers of transparent glass-like bodies (nectocalices) resembling individual jellyfishes, which are so delicately attached to the stem that they wave to and fro. They easily break off, and for a short time seem to possess life of their own.

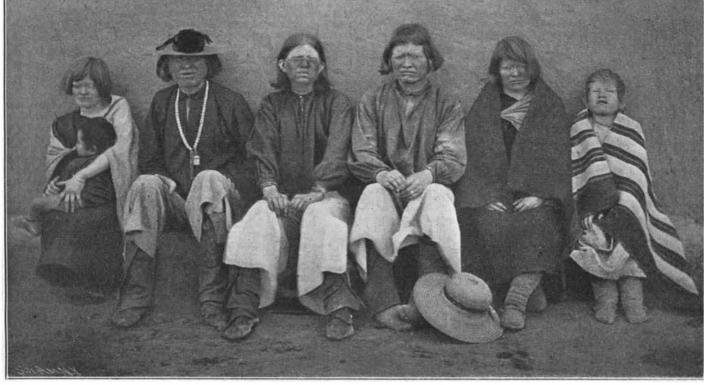
These beautiful bodies are so many pumps, and are the organs of locomotion of the Physophora, forcing it along swiftly or slowly, as it pleases. At the base of the central column are groups of various organs, the most conspicuous resembling the tentacles of a sea-anemone, and colored a rich pink. Below them extends a maze of lacelike tentacles, lavender and pink in hue. The float is an exact imitation of a bulb of quicksilver.

The writer was fortunate in observing the Physophora in the act of descending. When captured its bulb was filled with gas and was half an inch in length -a float that kept the animal at the surface with the top of the bulb bobbing above it so charged; it was impossible for the creature to sink. It made several ineffectual efforts to do so, pumping itself a few inches below the surface; but the bulb would carry it up again. It now swam around several moments, then stopped in the center of the tank; the lower part of the bulb or float was seen to restrict, as though some one had tied a string about it. Presently the restric tion reached the center, forming a separate drop of seeming quicksilver, which was gradually pushed downward by muscular action until it escaped and rose to the surface. Another restriction was now forming. and another drop of gas was pushed down and out of the tube of the mimic thermometer. This was repeated four or five times in ten minutes, and finally the beautiful and complex pumping machines forced the entire animal below the surface without difficulty.

Similar to the Physophora, but rarer in these waters, is the allied form, Agalmopis, two specimens of which it was the writer's good fortune to secure. In the open water it was a most delicate creature ablaze with color. So delicate was it that the slightest swirl of the water seemed to threaten it, and it was only taken by lowering beneath it a glass jar. Like Physophora, it has an axis which is covered with the glasslike pumping machines, or nectocalices, in two rows; all giving the upper portion of the animal the appearance of an

glass. Each nectocalix, or pump, resembles a jellyfish in appearance, and is connected with the axis by a delicate stem and with its neighbors by gelatinous horns which become locked, giving the entire mass some stability. The crystal pumps have circular openings which lead to cavities within; all the openings point at right angles to the axis. As in Physophora, they are the organs of locomotion, water being taken in and violently forced out by the sudden compression of the walls of the crystal pump. The animal has the power to change

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WHITE INDIANS OF ZUNI, NEW MEXICO.

served in these waters. Jellyfish with tentacles forty feet in length—veritable giants—have fouled the nets of the fishermen off the mouth of Avalon Bay. Doubtless this jellyfish sometimes attains great length. So vast are the numbers of jellyfishes at the time of writing—April—that in crossing the Santa Catalina channel they are almost constantly in view. The entire channel may be said to be filled with these living comets, which at night aid in converting the waters into a sea of light.

One of the most beautiful of all jellyfishes, and one not uncommonly seen here, has been kept in confinement by the writer. This is the Physophora hydro-

the direction of the openings, and so its direction, to a certain extent.

It was fascinating to watch the evolutions of this beautiful creature and the peculiar movements of the nectocalices, leaping as the water was pumped out; but the "pumps" very soon broke away, and covered the bottom of the tank, each moving and turning about, apparently with a life of its own. Reaching out from this portion of the animal are groups of organs of various kinds and lacelike tentacles of rose pink.

With these delicate forms were kept for a short time