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A NEW THEORY OF LIGHT SENSATION.

Two recent numbers of Mind contain articles upon the new theory of light sensation devised by Mrs. Christine Ladd Franklin, a graduate of Vassar College and the first alumna of that institution to receive the degree of Ph.D. from her alma mater. Nature thus compares this theory with those known as the Young-Helmholtz and the Hering theories.

The former of these supposes that the judgment picks out of a mixture of colors all the even redgreen-blue sensations, and deceives itself into thinking them to be a new sensation called white. The new theory assumes an independent retinal process as ground for the latter sensation, therein agreeing with Hering's theory.

But while Hering supposes that some parts of the spectrum produce construction and others destruction of the tissue of the retina. Mrs. Franklin considers that the sensations of the black-gray-white series must be regarded as the fundamental ones, and attributed to the dissociation of certain molecules, which she provisionally calls the gray molecules. The atoms thus dissociated have different periods of vibration, and in the more highly developed visual organs -those capable of color sensations-these color atoms differ in behavior according to the wave length of the light beating upon them. Thus some atoms would only be torn off by red light, and would give rise to the sensation of red. The prevalence of such color molecules would coincide with the predominance of per cent. the structures known as "cones" in the fovea of the retina, while the "rods" are endowed chiefly with gray molecules. This is simply translating into the language of the theory the well known fact that the color sense is chiefly confined to the center of vision, as anybody may prove by looking at a colored object through the corner of the eye. This distribution, says Mrs. Franklin, offers a perfect analogy with the organs of hearing. In the ear we have a very simple apparatus for hearing noise only, and also a highly differentiated structure for the discrimination of notes of various pitch.

ITALIAN COLONIZATION IN AFRICA.

As the European nations divide Africa among them, Italy is taking her share and has established a protectorate over Abyssinia. The eastern portion of this country, bordering on the Red Sea, is called Eritrea. This is ruled by a civil and a military governor and three councilors appointed by King Humbert, and here an Italian colony has been started in the hope of bettering the condition of the country and of lessening the tide of emigration to America. L'Illustrazione Italiana, of Milan, publishes an account of the arrival of the first detachment of peasants taken to Eritrea, at Asmara, a small town near the Red Sea. It is written by some one already resident there and familiar with the country and the colonization scheme. We have taken from the articles some of the most important details respecting the colonists and their future home.

The company consisted of nine families, fifty-seven persons in all, twenty four of them strong laboring men. They are from Lombardy, Milan, and Sicily, and were under the leadership of Baron Franchetti, who was authorized by the Minister of Foreign Affairs to take command of the expedition. The baron has worked with untiring zeal in behalf of this agrarian colonization project, and his face shone with delight when his little company were safely landed last November.

The peasants themselves were pleased with the country from the first. Much had been said to intimidate |lithic, and he considered rightly so. He concluded by them before they left their homes. They had been told that "on the Red Sea fire would rain upon them from heaven;" but they saw no fire and felt no more toria Institute. heat than that of an Italian June day.

Their steamer landed at Massaua, the largest town The Yellow Calla Lily. of Eritrea, on an island of the same name near the The white calla lily of our gardens is well known, it coast. Those who wished to deter the colonists from still retaining the original name of Calla, although starting had told them that they would "die of suffo- botanists have in modern times removed it to another cation at Massaua;" but they were actually very little genus, which is called *Richardia*. Calla will, however, ted by the tropical temperature. They remained be its common name. It has been frequently מתר there only long enough to get their luggage transhinted that there are species with other colors, which ferred to the train at Abd-el-Kader. From there they would soon come into cultivation; but, so far, these went up to Asmara on the plateau where their new have been mere rumors. It is now definitely known. home was to be. The women and children were says Meehan's Monthly, which is good authority, that greatly interested in the natives, the men felt of the there is a bright yellow species, which has been named by botanists Calla Elliottiana. The one in cultivasoil, shelled the grain still in the fields, examined the native implements and began to be hopeful of the tion, known as Richardia maculata, has a slightly future. At Asmara, the men grouped themselves yellowish tint sometimes. The new one is said to be a clear yellow, and has leaves spotted with white, simiaround the carts in which their wives and children were to be carried to their final destination, the cololar to our common maculata. Only one original plant nial farm near Circolo, and sang the Italian national was introduced, and it is said there are only a few hymn. The Asmarians pressed around them and in propagated from it in cultivation. Ten plants were recently sold at auction in London, and bought by entheir way gave the strangers a welcome. The officials who received them at Circolo were very terprising florists for \$2,000, which is considered the largest figures ever obtained for auction plants. Ankind; wine was offered to the adults and cakes to the children. The men were melted to tears, and the other yellow one has been introduced under the name women said, "It is too good to be true !" of Calla Pentlandi, which is said to differ in having larger foliage and richer colored spathes, but which When they saw the fine grain which was being harvested at the colonial farm and the variety of pro- has not yet been offered to the trade.

ducts raised, their last fears vanished and they agreed that the success of the undertaking was sure.

The fact is that the Eritrean plateau is very similar to Italy in fertility and climate. The various altitudes will admit of their raising tobacco, coffee and cotton, besides grain. The country is so large that there is plenty of room for the emigrants without encroaching upon the rights of the natives. And they have been so much disturbed by the invasion of hostile tribes from the Soudan that they welcome the protection of a civilized government.

The best promise of success for the colony is in the selection of the emigrants. They are honest people, and they understand that they must not expect help except so far as it is necessary in the first months; their own labor is to give them the ownership of the land.

Baron Franchetti's form of contract, approved by the foreign minister, is based upon the two following fundamental articles :

1. Gratuitous grant in perpetual ownership of a farm of twenty ettari (equal to sixty acres) for a family is subject to the condition of residence and labor on the same for a period not longer than five vears.

2. Money advanced for seed for the first planting, food for the first year, farming tools and a house, is all to be returned at an annual rate in the form of labor, produce, cattle or money, with interest at three

Baron Franchetti has overcome great difficulties and much opposition in the furtherance of this scheme. If this nucleus of a colony is contented and successful, so that large numbers of families join it, the social problem which is at present so seriously disturbing Italy will find a most happy solution.

Was There a Flood ?

One of the largest meetings ever held by the Victoria Institute, of London, England, took place in the third week of March, to hear that well-known "Nestor among Geologists," Professor Prestwich, F.R.S., read a paper on "A Possible Cause for the Origin of the Tradition of the Flood," in which he treated the subject "from a purely scientific standpoint." In it the author described at considerable length the various phenomena which had come under his observation during long years of geological research in Europe and the coasts of the Mediterranean. Among these he specially referred to having found the flints of the drift to be of two classes, one with bones of animals, carved, and interspersed with the remains of man, and the other, which he termed the rubbledrift, containing bones of animals of all ages and kinds in vast heaps. He cited the confirmatory opinions on this point of Professor Geikie, F.R.S., a member of the Institute, and drew special attention to the geological surroundings of these strange deposits, and the manner in which the bones were found. He then referred to phenomena in regard to raised sea beaches, and the constant occurrence of "head," the large masses of transported rock, loam and loess, covering the high plains in Hungary and Southern Russia, and the ossiferous breccias in various localities. From the circumstances attending these and their surroundings he said he had been forced to the conclusion that all their phenomena were "only explicable upon the hypothesis of a widespread and short submergence, followed by early re-elevation, and this hypothesis satisfied all the important conditions of the problem," which forced one to recognize that there had been a submergence of continental dimensions. The Age of Man was held to be divided into Palæolithic and Neosuggesting that thus there seemed cause for the origin of a tradition of a flood.-Bulletin of the Vic-

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