A LARGE WHALE ON A CALIFORNIA BEACH.

The male mammal shown in our illustration came ashore at Long Beach, Cal., on Thursday afternoon, May 13, tail first, and was made fast to a stake by a rope tied around the body next to the flukes. It gradually settled in the sand as the tide receded, as shown in the picture. It had apparently been injured, perhaps by a sword fish, as blood oozed from under it. It had spouted a few times when the tide was up, and lived until some time on Friday, opening its jaws several times. On Saturday and Sunday thousands of people from the country around, and from Los Angeles, 25 miles away, came to see the sight. The citizens raised a purse, and W. E. Haskins, a taxidermist, was engaged to prepare the skeleton for mounting in the Long Beach Park. The captors, M. A. Cook, Will Settles, and Frank Bowers, workmen on the bluff close by, received $150 for their prize, and George E. Blount, section foreman on the terminal railroad, gave the following as its measurements: Extreme length, 63·7 feet; length of jaw, 14½ feet; breadth of tail at points, 12 feet; breadth across back, 12·3 feet; length of fin, 6·7 feet. It was a black whale, having a dorsal fin. The skin was about two inches thick, and but a very small quantity of oil blubber was found. Our view is from a photograph taken by C. J. Dougherty, and for the foregoing particulars we are indebted to William Galer, of Long Beach, Cal.

Incandescent Light and Sight.

Some interesting discussion has taken place of late in regard to the effect upon the eye of the Auer incandescent light, says the London Lancet. The mantle of this incandescent system of lighting consists, as is now pretty generally known, of a network of the rare oxides (chiefly of thorium, with a small proportion of cerium), which on being heated in the Bunsen flame emits a brilliant white light. As might be expected, this light is comparatively rich in the ultra-violet or chemically active rays that are identical with those in sunlight, and it has been urged that this richness in actinic rays may possibly be productive of injury to the sight. This argument appears to be based on measurements of wave lengths made by means of the spectroscope.

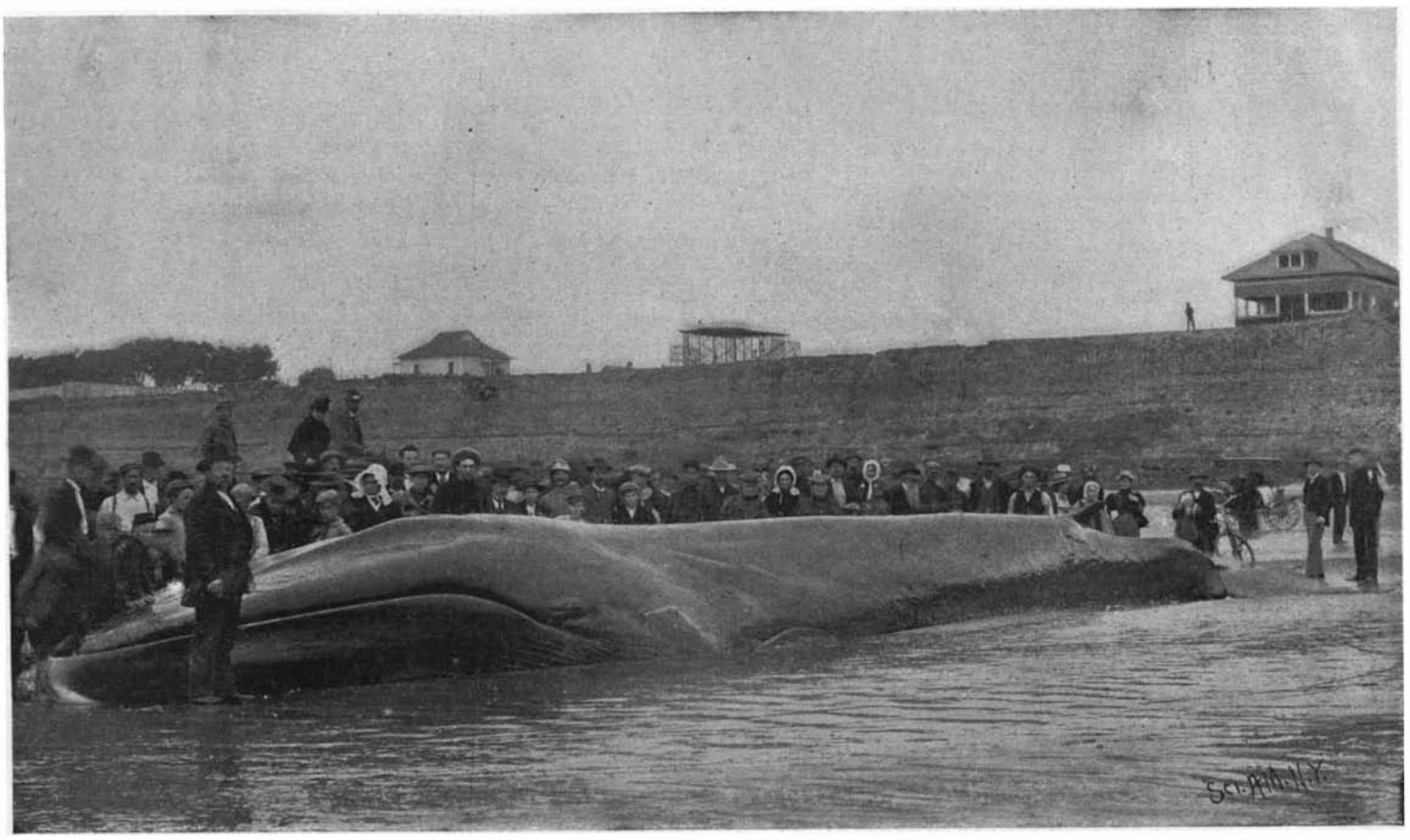
The arc electric light, it is said, has similar effects, but of a more pronounced character. As yet there is no evidence of experience, as far as we know—and the Welsbach light has now been in use for several years—that the slightest injury to the optic mechanism where the system has been in use for domestic lighting has ever been produced; and unless a person deliberately stared at the naked light for some hours every day it would be surprising to learn that real injury could be referred to this cause. It is well known that the radiation of light downward from the incandescent mantle is feeble, so that without a reflector or some reflecting surface at the top of the mantle, as in the ordinary way would be provided by a ceiling, much of the illuminating power would be lost. From the particular point of view under discussion this is, however, an advantage for the lighting of rooms, since reflected and not directly transmitted light is pleasanter and more agreeable to the eye, besides which in the phenomenon of reflection partial absorption takes place, so that the light becomes pleasantly diffused and of a healthy tone.

In any case, if any apprehension should exist that the rays proceeding from an incandescing mantle are injurious because of their chemical activity—an activity which in sunlight gives life to the plant world—these rays could be readily and effectually filtered out by the simple expedient of surrounding the light with a tinted globe, such as red or orange, which need reduce but very little the originally high illuminating power. Even then the light is over 100 per cent higher in illuminating value than the ordinary gas flame. Artificial light, of course, is most in request in the dark days of winter, and in that season, at the best of times, we receive but little more than eight hours' light from the sun, and then frequently it is largely filtered from its chemically active rays by the medium of a murky atmosphere.

On the other hand, we enjoy in the summer just twice as much sunlight, which is then of greatly increased power, and the chemical activity of which is infinitely greater than could possibly be furnished by any known form of artificial light. Taking these simple facts into consideration, we should almost expect to find in some form or other some manifestation of deterioration in the eyesight during the summer period, due to a largely increased exposure to the chemically active rays of solar light. We are not aware that any such manifestation has been observed. The argument that nature intended us to rest from the effects of light as soon as the sun is below the horizon demands, if it can be reasonably applied at all, the rejection of all artificial means of lighting, since there can be no light of any kind of any aid to the eye whatever that can be without some chemical activity.

Still less practicable does such a suggestion become when applied to the lands of the midnight sun and other places, or to the Arctic winter of several months' darkness. Clearly this theory could only be prompted by the consideration of the limited conditions of environment in the temperate zone. No men probably are exposed more freely and continuously to the chemically active rays of the sun than our sailors, yet their acuteness of vision and penetrative power of sight is a matter of admiration and wonder to every one. Sunlight is by a thousand circumstances widely and uniformly diffused, making it more acceptable to the eye, and during its journey to earth it undergoes an important modification, for in passing through the air it is deprived of some of the red rays, while the blue rays pass on—a circumstance which explains the azure character of the sky.

In view of these facts. it is difficult to receive the theory with any seriousness that because there may be a certain proportion of ultra-violet rays in a given artificial light it is necessarily injurious. It would be a sorry thing if these same rays were forever filtered out of the light of the sun by the medium of constant fog or cloud, as so often happens in the days of winter. Exposure to a purely elementary light, as red, yellow, or blue, does undoubtedly prove injurious either positively or negatively. The distress produced on working for some time, to quote one instance, in a red or yellow light, as in the dark room of the photographer, who employs one or other of these colors on account of their chemical inertness, is well known. Absence of sunlight is held to be synonymous with the absence of life, and the life-giving and invigorating qualities of solar light are largely, if not entirely, dependent upon the chemically active rays, and certain lines of scientific research have shown that without the phenomenon of insolation going on day by day life would be unendurable and finally extinguished. White light, therefore, as afforded in its entirety by the sun, is a necessity of existence.



LIVE WHALE CAPTURED AT LONG BEACH, CAL., MAY 13—LENGTH 63 FEET.

The German Population.

After a delay of three months the German Imperial Census Department has given us the exact results of the census taken in December, 1895. The Chronicle Berlin correspondent says the total population of the empire, including Alsace and Lorraine, reaches 52,244,503, against 49,428,470 in 1890 and 41,058,792 in 1871. That is to say, the population has increased 27 per cent since the re-establishment of the empire twenty-five years ago. The kingdom of Saxony in this period has increased 49½ per cent, Prussia 29 per cent, Hesse 21 per cent, Saxe-Coburg and Gotha 24 per cent. Remarkable increases are to be noted in the populations of the two free towns and their dependencies. Hamburg, which in 1871 had a population of 338,974, has now 681,632, and Bremen has risen from 122,402 to 196,278. A remarkable increase is also noticeable in some of the smaller states, where iron and coal industries have been recently developed—for instance, in the two Reuss principalities from 134,126 to 198,928. The increase in Bavaria is 19 per cent in the twenty-five years, in Würtemberg only 14, and in the Reichsland (Alsace and Lorraine) only 6. In the Prussian provinces the most marked increase of population is to be found in Westphalia, which has now 2,760,250, against 1,775,175 in 1871. The Rhine provinces show an increase of 42 per cent—from 3,579,347 in 1871 to 5,105,962 in 1895. The extraordinary increase in the population of Berlin and its suburbs is worth noting. In 1871 the Stadtkreis Berlin numbered 826,341 inhabitants; in 1891 it had risen to 1,677,351.

The Baltic Canal in the Winter.

In order to obviate the freezing up of the Baltic canal, thus keeping it open for navigation as long as possible, the authorities tried to replace the fresh water of the canal by salt water. This could only be done from the Bay of Kiel, where the water contains on an average one and one-half or one and three-quarters per cent of salt, while at the other end of the canal, in the Lower Elbe, the percentage is about one-half per cent only, and the level there is far more affected by the tidal movement than in the Bay of Kiel. By leaving open a sluice near Brunsbuttel during low tide, the salt water, entering from the Baltic end, was caused to gradually expel the fresh water through the other end of the canal, and at the present moment both in the canal itself and in the lakes through which it flows the fresh water fauna and flora are more and more disappearing and are being superseded by salt water plants and animals from the Baltic. The fish which used to populate the lakes will die as soon as they enter the canal.—Die Vedette.