

SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

PUBLISHED BY

N. D. C. HODGES,

47 LAFAYETTE PLACE, NEW YORK.

SUBSCRIPTIONS.—United States and Canada.....\$3.50 a year.
Great Britain and Europe..... 4.50 a year.

Communications will be welcomed from any quarter. Abstracts of scientific papers are solicited, and twenty copies of the issue containing such will be mailed the author on request in advance. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication, but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinions expressed in the communications of our correspondents.

Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The "Exchange" column is likewise open.

VOL. XIV. NEW YORK, OCTOBER 18, 1889. No. 350.

CONTENTS:

THE BOYNTON RAILWAY.....	259	REPORT OF THE COMMITTEE OF THE NEW YORK STATE MEDICAL SOCIETY ON THE CAUSES AND PRE- VENTION OF BLINDNESS.....	268
THE RÔLE OF PTOMAINES IN INFEC- TIOUS DISEASES.....	260	BOOK-REVIEWS.	
RUSSIAN LITERATURE.....	262	The New Eldorado.....	270
ELECTRICAL NEWS.		Elementary Lessons in Heat.....	270
New Insulating Material.....	263	Our Cats and all about Them.....	270
Lead-covered Cables.....	263	A Treatise on Ordinary and Partial Differential Equations.....	271
Lightning on War-Vessels.....	263	A Graduated Course of Natural Science.....	271
HEALTH MATTERS.		AMONG THE PUBLISHERS.....	271
The Pathological Bearings of He- redity.....	263	LETTERS TO THE EDITOR.	
Pea-Soup as a Substitute for Beef- Tea.....	264	The Telephone for the Prediction of Thunder-Storms	
Malarial Fever in Eastern Massa- chusetts.....	264	Harvey B. Bashore 273	
Transplanting of a Chicken's Cor- nea.....	264	Map of Niagara Falls	
The Sandwich Island Leper Colony	264	Joseph F. James 273	
The Foods of Different Peoples.....	264	INDUSTRIAL NOTES.	
The Dread of Death.....	264	The Automatic Type-Writer.....	273
Cholera in Asiatic Turkey.....	264	The Offrell Dynamo.....	273
Tobacco and Insanity.....	264	A New Constant-Current Electric Motor.....	274
The Etiology of Goitre.....	265		
NOTES AND NEWS.....			
EDITORIAL.....	268		
The World's Fair.			

THERE IS LITTLE to chronicle this week of the progress in the plan for a world's fair in this city in 1892. The executive committee, composed of members of the various committees who have had the work in charge, and the sinking-fund commissioners, met on Monday and organized. Among the messages received was one from Joseph Pulitzer, subscribing \$50,000 outright, and offering to be one of twenty-five to subscribe \$100,000 each. The work of getting the property-owners within the limits of the proposed site to give the use of their land on any terms can be said to make practically no progress, as was to be expected. Meanwhile the Chicago committee, who want to see the fair in that city, urge in every way the claims of that city. They will have it, that, as Chicago is nearer the centre of population in this country, it will be more accessible for Americans, who will be those most largely represented as visitors and exhibitors. Then, again, the question of site is not a troublesome one for Chicago. It cannot be said that New York has down much yet to secure the fair, and it is certain that Chicago is making a good deal of noise; so that, unless there are some tangible results to show in New York, the popular verdict may soon be in favor of the Western city.

REPORT OF THE COMMITTEE OF THE NEW YORK STATE MEDICAL SOCIETY ON THE CAUSES AND PREVENTION OF BLINDNESS.

TWO years ago a committee was appointed by this society to investigate the question of blindness due to contagious ophthalmia in this State and in the United States, and to recommend means for its prevention. The importance and extent of the subject were so great, that at the meeting one year ago it was only possible to report progress, and ask that more time be given for the work. This was rendered necessary also by the fact that our lamented colleague, Dr. Agnew, was unable to render the valuable assistance upon which we had counted; and only recently has his place on the committee been satisfactorily filled. Even now it seems advisable to give a synopsis of the more important features of the subject, instead of attempting to go into many details which are not only of interest to the ophthalmologist, but also of importance from a sanitary point of view. The reasons for this investigation concerning the increase of blindness will become apparent if a statement is first made of the statistical facts. In presenting these it will be necessary to repeat to a certain extent the statements made in a paper by the chairman of this committee, which was published in the "Transactions of the American Ophthalmological Society" in 1887. As far as we are aware, however, these statistics have not been stated in a similar manner anywhere else. When we compare the report of the United States census of 1870 with the report of 1880, we find the population of the United States in 1870 was 38,558,371, and the number of blind then was 20,320; whereas the population in 1880 was 50,155,783, and the number of blind was 48,929; in other words, while the population of the entire country had increased 30.09 per cent, the number of blind had increased 140.78 per cent.

It is worth while, in passing, to call attention to the distribution of the blind throughout the country, and in doing so to quote the figures in the paper already mentioned. If the United States be divided into three parts, according to latitude,—the first or southerly range of States including those which lie below the 35th parallel, the second range between the 35th and 40th, and the third above that,—we find there is a constant increase in the ratio as we pass from the north toward the south. Thus there are, in the northerly range of States, 7.9 blind in each 10,000; in the middle range of States, 9.42 blind in each 10,000; in the southern range of States, 10.81 blind in each 10,000.

There is another classification of the States which is also of some interest. If they be divided according to longitude into three groups, each of which includes about fifteen degrees, we find the proportion of blindness decreases as we go from east to west. According to this division, the first group of States would lie between the Atlantic Ocean and the Mississippi River, extending to about the 15th degree of longitude west from Washington; the second would be from the Mississippi to the Rocky Mountains, or from the 15th to the 30th degree; while the third would include the strip from the Rocky Mountains to the Pacific Ocean, or from the 30th degree of longitude west. Here we find, in the easterly range of States, 10.34 blind to each 10,000; in the middle range of States, 7.90 blind to each 10,000; in the western range of States, 5.68 blind to each 10,000.

So much for the statistics relating to the United States as to the number of blind, their increase throughout the country as a whole, and their distributions in different parts of it.

Let us next consider the statistics which are available relating to New York State alone. The population in New York State in 1870 was 4,382,759, and in 1880 was 5,082,871, being an increase of 15.9 per cent; whereas the number of blind in New York State in 1870 was 2,213, and in 1880 was 4,981, being an increase of 125.07 per cent.

In a similar manner, if we compare the State census of 1875 with the United States census of 1880, we find the population in 1875 was 4,698,958, and in 1880 was 5,082,871, being an increase of 8.1 per cent; while the number of blind in 1870 was 2,256, and in 1880 was 4,981, being an increase of 111.03 per cent: in other words, the official reports show, that, during the ten years preceding 1880, blindness in the State of New York increased 8.2 times as

Science

ns-14 (350)

Science ns-14 (350), 259-274.

ARTICLE TOOLS

<http://science.sciencemag.org/content/ns-14/350.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.