[Vol. XIII. No. 330

SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

PUBLISHED BY

N. D. C. HODGES,

47 LAFAYETTE PLACE, NEW YORK.

SUBSCRIP	TIONS.—Unit	ed States and Canada\$3.50 a year.
	Grea	at Britain and Europe 4.50 a year.
Science	Club-rates f	or the United States and Canada (in one remittance):
r	subscription	1 year, \$ 3.50
2	"	1 year 6.00
3	"	1 year 8.00
4	"	1 year 10.00

Communications will be welcomed from any quarter. 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.

Vol.	XIII.	NEW	YORK	K, MAY 31	, 1889.	No.	330.	
CONTENTS:								
The	WIDDIFIELD ANI	b Bow	MAN	EDITORIAL.			422	
Electric Car-Brake 411 Cable Railways 413				Sanitary Condition of Paris				
				Horse-Flesh as Food in France.				
The W	ORK OF THE PEABO	DDY MUS	EUM	BAKING-PO	WDERS	••••••	422	
OF AMERICAN ARCHÆOLOGY AND				THE MINERAL WEALTH OF BRITISH				
Ethnology 417				Солимыа 426				
Notes on the Use of Gratings H. A. Rowland 418			Among the Publishers 429					
			Letters to the Editor.					
Notes	AND NEWS		419			H.A. Haz	en 429	

NOW THAT THE PARIS EXPOSITION is attracting a great crowd of strangers to Paris, it is not without interest to note the excellent sanitary condition of that city. The mortality has at no time this year reached so small a figure as in the week ending May 4. The average for this week in the past five years has been 1,122. This year the mortality was only 984; and in the week following, it fell to 951. Typhoid-fever especially has shown, since 1888, a constant decrease. More than all others, this affection belongs to the list of diseases which may be avoided; and it is only necessary that there should be due energy on the part of the public authorities to reduce its frequency in a notable proportion. While typhoid-fever and varioloid have decreased, it is unfortunate to note that this is not true of measles and of diphtheria. This results, no doubt, from the fact that the measures which can stay the progress of these diseases depend more upon individual initiative than on public measures. Among the causes which may explain the improved health of Paris may be noted the increased use of the conveyances which are placed by the police at the disposal of those wishing to transport persons suspected of being affected with contagious diseases. In 1886 these carriages were called for only at the rate of thirty to forty per month. In 1888, in the month of April, this number had increased to 211; and in the April just passed, to 231. Another cause acting beneficially is doubtless the improvement in the quality of milk, - an improvement due to the constant control exercised by the city laboratory.

IN 1856, ISIDORE GEOFFROY-SAINT-HILAIRE, in a work of considerable importance on food-substances, and in particular on horse-flesh, wrote, "There are millions of Frenchmen who never eat meat, and each month there are millions of kilograms of good meat all over France turned over for industrial uses of secondary importance, or even thrown away." Since that time, and in a great measure as the result of the persevering efforts of Mr. Decroix, a retired military veterinarian, and to-day the honorary president of the Society for the Prevention of Cruelty to Animals in France, horse-flesh has entered in every part of France into every-day use. In Paris alone the number of horses slaughtered for food-purposes has risen since 1866 from 902 to 17,256 in 1888. The greatest consumption, as is well known, was during the years 1870 and 1871; but there has been a constant increase from 1872 on. In addition to the horses consumed, there are also a considerable number of asses and mules. From Paris the use of horse-flesh has extended into the provinces, and at this time there are in all the large cities of France slaughter-houses for the purpose. The animals are no longer allowed to die of disease or of old age after their usefulness as beasts of burden has come to an end, and it is claimed that a horse twenty years old in good condition is more tender than a young one if thin and hard-used. In the Department of the Seine alone, on the 1st of January, there were 132. establishments for the slaughter of horses. The price of horseflesh is but little more than half of that of beef for the corresponding parts; and it is claimed by Mr. Decroix that horse-flesh is more healthy and more nourishing than that of beef, and that, in equally good condition, five pounds of beef are required to give the same amount of nourishment as four pounds of horse-flesh.

BAKING-POWDERS.

HENRY B. CORNWALL, Ph.D., professor of analytical chemistry at the John C. Green School of Science, Princeton College, has, during the past year, made analyses of the different brands of baking-powders sold in New Jersey, in order to determine their ingredients, the leavening power or strength of each, and the healthfulness or otherwise of the residues left in the bread after baking. A full report of the results will be found in the "Report of the Dairy Commissioner of New Jersey for 1888." Professor Mallett of the University of Virginia has recently completed an investigation of the baking-powders in general use, and his results are reported in full in the London Chemical News of Dec. 7 and 14, 1888. The whole subject of baking-powders has therefore been very thoroughly examined into by two competent and disinterested chemists; and the advantages and disadvantages of the different brands duly set forth in their reports. The opinions given in the report of Professor Cornwall are based on some 55 analyses of 39 brands of baking-powders, as follows : ---

	Analyses.	Brands.
Cream-of-tartar and bicarbonate-of-soda powders	13	8
Phosphate-of-lime and bicarbonate-of-soda powders	7	4
Alum, phosphate-of-lime, and bicarbonate-of-soda powders	26	20
Alum and bicarbonate-of-soda powders	6	4
Unclassified	3	3

Large quantities of inferior baking-powder were found to be sold in bulk by manufacturers. This is put up in boxes by the retailer, and a fancy label affixed, he knowing nothing about the composition of the substance, its cheapness only concerning him. During the time the samples from Professor Cornwall's analysis were being completed, it was ascertained that some of the makers and dealers in the inferior grades of baking-powders joined with their business that of lottery or gift enterprise; and plates, cups, lamps, pewter casters, and other household goods, were given away with a certain number of cans, or a can of baking-powder was given with a certain quantity of tea or coffee. It was stated in one sec-