

There was but a single death from scarlet fever, the smallest mortality from this disease reported for a long time.

### Miscellany.

#### THE NEEDS AND SHORTCOMINGS OF WOMEN PHYSICIANS.

DR. MARY PUTNAM JACOBI, of New York, has recently expressed her ideas as to medical women as follows. To any one at all conversant with the facts her estimate must appeal as altogether just. Certainly few women are better able to judge of such a matter than she, herself so striking an exception to the deficiencies she characterizes:

"In woman, we find, on the whole, a less quantum of force, or surplus of vitality, over and above the needs of individual nutrition. This relative defect must be compensated by greater precision of technical training in order to diminish the friction of the mental working machine,—an instrument of precision may, under favorable circumstances, turn out work which is equivalent in value to that effected by sledge hammers. This need of strenuous drill and discipline—a sort of West Point system—is not recognized in the medical education of women at all at present. In fact, it is only just beginning to be accepted that a college education is a desirable preliminary to plunging into the extraordinary difficulties of medical study. It is still generally supposed that to offer a curriculum to be traversed is all that is necessary; whereas the real need is of practical exercises of considerable variety and severity in order to train faculty and develop new brain force where inherited and traditional basis for exact work was lacking. The absence of this and of great medical teachers in America—at all events, who are accessible to women—go far to explain the mediocre results so far achieved."

#### ON THE IMMUNIZING AND CURATIVE EFFECT OF ANTITOXIC BLOOD-SERUM OF THE SHEEP IN TYPHOID INTOXICATION.

PEIFER, of Greifswald, spoke on this subject at the German Congress of Internal Medicine. In conjunction with Beumer he had performed experiments on the immunizing effect of the blood-serum from sheep who had been treated for three months with sterilized cultures of the typhoid bacillus. Earlier experiments had shown these investigators that the toxine of typhoid cultures was contained in the bodies of the bacilli themselves. Cultures which had been passed through the Chamberland filter were shown to be less toxic than before filtration. The sterilization of the virulent cultures without affecting their toxic properties was obtained by keeping them for one hour at a temperature of 55–60° C.

The work of Behring and his collaborators on diphtheria and tetanus had led the writers to approach the question as to whether small amounts of virulent cultures of the typhoid bacillus produced in the blood of animals antitoxic substances which inhibited the toxic effect of repeated injections of the cultures. In numerous experiments on guinea-pigs this question was answered in the affirmative.

The effect of the antitoxic serum depended not in a

power to destroy the bacteria, but to neutralize the toxines. Experiments with large animals (sheep) showed that it was possible by previous or simultaneous injections of antitoxic serum to immunize guinea-pigs and mice against three times the fatal dose of the cultures. The writers also, on the ground of their observations, arrived at the conclusion that animals already suffering severely from the toxic effect of the cultures two to four hours after the administration of a fatal dose, could be cured by the injection of the antitoxic serum.

#### INTERNATIONAL CONFERENCE REGARDING THE SANITARY ADMINISTRATION OF RAILWAYS AND NAVIGATION.

THE Conference will meet at Amsterdam the 20th and 21st of September, 1895. The object of the meeting, in general, is to consider the methods adopted by various countries to insure the interests of travellers both by land and sea. To this end it has been thought wise to unite at a congress members of the medical profession who are especially interested in matters pertaining to sanitation in travel.

The work of the Conference is to be divided into three sections, as follows:

- I. Guarantees of the capacity of officials.
- II. Organization of the medical service.
- III. Hygienic interests of employees and travellers.

In view of the international importance of many questions on the programme, the committee has invited delegates to be present from various countries and from railway and navigation corporations. Papers will be presented either in French, German or English.

The president of the Conference is to be Prof. H. Snellen, of the University of Utrecht, one of the foremost ophthalmologists of Europe. Dr. B. Joy Jeffries, whose admirable work on color-blindness is universally recognized, has been invited to represent America. All communications should be made to the Secretary, Dr. Pijnappel, Stadhouderskade, 60, Amsterdam.

#### DIPHThERIA EPIDEMIC AT ASHTABULA.

DR. F. D. CASE, in the *Medical and Surgical Reporter* for July 13th, speaks of the epidemic as having peculiar interest from the fact that it is one of the few well-authenticated instances of an extensive epidemic due to infected milk; and, secondly, that it was the first epidemic in this country in which a general use was made of antitoxin.

All the cases up to December 10th were in families that procured milk from a certain milk-wagon. An inspection of the dairy showed the cows to be in good condition. On December 12th the health-officer reported that there were 49 cases of diphtheria, 45 of which were in families who used this particular milkman's milk. The report goes on to say that at no time were the bacilli of diphtheria found either in the suspected milk or in cultures taken from the throat of the milkman delivering the milk, who was at the time suffering from some sort of a sore throat. In spite of this fact, the circumstantial evidence was so strong, that the writer feels altogether justified in his conclusion that the milk was the source of infection.

The results of antitoxin treatment were, on the whole, satisfactory. The most frequent sequelæ in cases not treated with antitoxin were paralytic in character, another argument in favor of the now well-recognized toxemic origin of the various paralyses.

Hemiplegia, accompanied by aphasia, occurred in the case of one patient, a woman of eighteen. This complication, implying a central nerve lesion, must be regarded as extremely unusual, as shown by a careful study recently made by Dr. John J. Thomas, of Boston.

The serum employed was procured from the Pasteur Institute in New York.

THE HARVARD SUMMER SCHOOL OF PHYSICAL TRAINING.

THE school of physical training at Cambridge, under the direction of Dr. Dudley A. Sargent, has just closed the most successful session in its history. There have been in all ninety students, the greater number being women. At the close of the course a public exhibition was given in the Hemenway Gymnasium. The work which Dr. Sargent has done so much to advance in this country must lead to an ultimate physical improvement in those directly engaged in it, and so indirectly to constantly increasing numbers in the community at large. It should especially claim the support and encouragement of the medical profession.

Correspondence.

ANOTHER WORD CONCERNING VIVISECTION.

CAMBRIDGE, August 3, 1895.

MR. EDITOR:— A short time since, Professor Mosso of the University of Turin, sent me a manuscript copy of the tribute to Ludwig from which, copying from the *London Lancet*, you have given a brief quotation. One line of it has very greatly puzzled me. "It is an error," says Professor Mosso in the manuscript before me, "it is an error to think that one can experiment on animals that have not lost sensation," a statement which the *Lancet* refers to as "wisely" made. I have quoted from the author's manuscript. The *Lancet* translation says, "It is an error to believe that experiments can be performed on an animal which feels."

Upon the "wisdom" of making such a statement, I forbear comment, but *is it true?* Is it an example of that scientific accuracy which laboratory work tends to inculcate? In the *Archives Italiennes de Biologie*, Vol. VII, page 312, etc., may be found experiments of a certain Professor Mosso, in which he speaks of the "pain which the animals must have suffered as they struggled against the impetus which was carrying them against their will," and one of these experiments lasted for several hours. In the same collection of researches (Vol. XIII, page 478), a Professor Mosso records that "all the animals uttered cries during the last hours of their lives as if they were suffering intense pain." But it is needless to refer to anything but personal experience. Anybody with the least acquaintance with research in physiology or pathology knows that this statement is not true. One can experiment "on an animal which feels." I have done it myself.

All exaggeration is deplorable. I doubt if we shall ever convince anti-vivisectionists of their errors by evasions or misstatements. The true interests of science will never be advanced by anything but the exact truth.

ALBERT LEFFINGWELL, M.D.

METEOROLOGICAL RECORD,

For the week ending July 27th, in Boston, according to observations furnished by Sergeant J. W. Smith, of the United States Signal Corps:—

Date.	Barometer.		Thermometer.		Relative humidity.		Direction of wind.		Velocity of wind.		We'th'r.		Rainfall in inches.	
	Daily mean.	Daily mean.	Maximum.	Minimum.	8.00 A. M.	8.00 P. M.	Daily mean.	8.00 A. M.	8.00 P. M.	8.00 A. M.	8.00 P. M.	8.00 A. M.		8.00 P. M.
S...21	29.93	74	82	67	79	73	76	N.	W.	4	6	F.	F.	.17
M...22	29.89	76	83	69	82	81	82	N.	S.E.	7	7	O.	O.	
T...23	29.95	76	82	69	66	61	64	N.W.	N.W.	14	6	O.	O.	
W...24	29.98	72	82	62	46	58	52	N.W.	S.W.	7	10	C.	C.	
T...25	29.78	73	81	65	59	83	71	W.	S.W.	7	10	C.	C.	
F...26	29.86	71	80	62	62	58	60	N.W.	W.	10	8	C.	C.	
S...27	29.91	70	79	61	48	81	64	S.W.	S.	2	15	O.	O.	

\* O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening; N., snow. † Indicates trace of rainfall. ☉ Mean for week.

RECORD OF MORTALITY

FOR THE WEEK ENDING SATURDAY, JULY 27, 1895.

Cities.	Estimated population.	Reported deaths in each.	Deaths under five years.	Percentage of deaths from				
				Infectious diseases.	Acute lung diseases.	Diarrheal diseases.	Diphtheria and croup.	Whooping-cough.
New York . . .	1,956,000	1042	604	34.40	9.50	26.80	2.20	1.60
Chicago . . .	1,600,000	—	—	—	—	—	—	—
Philadelphia . . .	1,139,457	593	313	31.28	7.82	24.31	4.25	.51
Brooklyn . . .	1,043,000	583	350	39.78	7.82	31.96	1.70	1.70
St. Louis . . .	540,800	—	—	—	—	—	—	—
Boston . . .	501,107	197	94	29.58	8.16	22.95	4.59	—
Baltimore . . .	500,000	—	—	—	—	—	—	—
Cincinnati . . .	325,000	—	—	—	—	—	—	—
Cleveland . . .	325,000	110	—	44.59	4.55	43.68	.91	.91
Washington . . .	285,000	—	—	—	—	—	—	—
Pittsburg . . .	272,000	129	74	31.57	3.85	26.95	.77	.77
Milwaukee . . .	265,000	—	—	—	—	—	—	—
Nashville . . .	87,754	—	—	—	—	—	—	—
Charleston . . .	65,155	—	—	—	—	—	—	—
Portland . . .	40,000	—	—	—	—	—	—	—
Worcester . . .	100,410	57	30	40.25	5.00	36.75	—	1.75
Fall River . . .	92,233	72	51	54.21	2.78	39.19	51.43	—
Lowell . . .	90,613	64	35	42.12	4.68	36.14	1.66	—
Cambridge . . .	79,607	31	17	38.76	3.23	25.84	6.46	—
Lynn . . .	65,123	24	8	8.32	20.80	8.32	—	—
Springfield . . .	50,284	13	6	46.14	7.69	46.14	—	—
Lawrence . . .	49,900	24	16	41.70	4.17	41.70	—	—
New Bedford . . .	47,741	30	21	53.28	3.33	50.00	—	—
Holyoke . . .	43,348	—	—	—	—	—	—	—
Brockton . . .	33,939	9	1	11.11	55.55	11.11	—	—
Salem . . .	33,156	14	7	42.84	—	35.70	—	—
Haverhill . . .	32,925	10	8	40.00	20.00	40.00	—	—
Malden . . .	30,209	10	3	20.00	20.00	20.00	—	—
Chelsea . . .	29,806	8	4	—	25.00	—	—	—
Fitchburg . . .	29,383	—	—	—	—	—	—	—
Newton . . .	28,837	13	6	—	7.69	—	—	—
Gloucester . . .	27,293	—	—	—	—	—	—	—
Taunton . . .	26,964	12	4	16.66	—	—	—	—
Waltham . . .	22,058	5	2	20.00	20.00	20.00	—	—
Quincy . . .	19,642	4	2	25.00	25.00	—	—	—
Pittsfield . . .	18,802	2	0	50.00	—	—	—	—
Everett . . .	16,585	3	3	33.33	—	—	—	—
Northampton . . .	16,331	5	1	40.00	20.00	40.00	—	—
Newburyport . . .	14,073	—	—	—	—	—	—	—
Amesbury . . .	10,920	3	1	—	—	—	—	—

Deaths reported 3,119; under five years of age 1,678; principal infectious diseases (small-pox, measles, diphtheria and croup, diarrheal diseases, whooping-cough, erysipelas and fevers) 889, consumption 252, acute lung diseases 143, diarrheal diseases 889, diphtheria and croup 83, whooping-cough 30, typhoid fever 28, measles 27, scarlet fever 13, malarial fever 8, cerebro-spinal meningitis 6, erysipelas 3.

From typhoid fever New York and Philadelphia 7 each, Brooklyn 5, Boston and Fall River 2 each, Pittsburg, Nashville, Worcester, Quincy and Pittsfield 1 each. From measles New York 18, Philadelphia, Brooklyn and Pittsburg 3 each. From scarlet fever New York 5, Philadelphia 3, Boston 2, Brooklyn, Cambridge and Salem 1 each. From malarial fever Brooklyn 4, New York, Nashville, New Bedford and Everett 1 each. From cerebro-spinal meningitis New York 5, Taunton 1. From erysipelas New York 2, Cambridge 1.