found that we obtain a greater reproduction of new bone when the haversian canals are well opened up by roughening the bone with the chisel, it necessarily follows that we shall secure greater circumferential reproduction if no part of the transplant is covered by an impervious membrane.

I would suggest that there may be a small sequestrum thrown off from the transplant in Dr. Wetherill's case, which happened in a case of ours two years ago in which there was a slight latent infection. The sequestrum constituted about one-fourth of the original graft, the other three-fourths having healed in and reproduced a considerable amount of bone.

W. L. BROWN, M.D., El Paso, Tex.

Evidences of Arsenical Poisoning

To the Editor:—In an editorial on this subject in THE JOURNAL, May 31, 1913, p. 1710, it is stated that "by no ordinary measures, such as those to which criminals would be likely to resort, could arsenic be introduced into the body after death and be carried by the ordinary processes of diffusion to a point [the brain] so remote from the central portions of the body."

This is so at variance with established facts that I wish to direct your attention to the matter in the interest of medical jurisprudence.

It is true, as the editorial points out, that formerly the belief was entertained that if arsenic is found in the brain of a cadaver, the poison must have been introduced into the body before death. During the past thirty years, however, many experiments on the dead bodies of man and of the lower animals have abundantly established the fact that this view is entirely untenable. The record of these experiments is found in easily accessible literature.

Vaughan in 1883 took up the subject and became the pioneer investigator. With an ordinary syringe, he injected arsenic into a cadaver by the mouth and the rectum. The body was put aside for twenty-five days; then the brain was removed and submitted to chemical analysis; in a little more than a thousand grams of it he found 3.63 mg. of arsenic, calculated as the trioxid. In 1888 Witthaus continued the investigation. He first used three cadavers, and into two of them he injected arsenic through the mouth; in the third the arsenic was injected into the stomach and abdominal cavity. Fourteen days later the brains of all three were examined and arsenic was found in every one. In one case the vertex and the base were tested separately, and it was discovered that there was quite as much arsenic in the one part as in the other—showing the rapidity and completeness of the diffusion. In a fourth case Witthaus injected the arsenic directly into the stomach and at the end of five days he separated from the brain 8.28 mg. of arsenic calculated as the trioxid.

In the majority of the foregoing experiments only easily obtainable apparatus was used and the arsenic was injected into that part of the body (the mouth) to which a criminal could have ready access. It will also be seen that the amount of arsenic found in the brain after post-mortem injection was greater than that found by Ekeley (1.2 mg., calculated as As_2O_3 , in 1,000 gm. of the brain) in the case reported by him (and referred to in the editorial), in which the arsenic was taken before death.

WALTER S. HAINES, M.D., Chicago.

The Insanitary Labor Camp

To the Editor:—In THE JOURNAL, May 10, 1913, p. 1464, is an editorial on this subject. While I concur for the most part in the deductions drawn, one statement is so obviously based on incomplete information that, in justice to our own and several other Western states, I call attention to it. The sentence is the following: "Because these camps are controlled by no laws, and because they are not supervised by any state department, they are a grave menace to the health of the laborers occupying them and the inhabitants of distant as well as adjacent towns."

Reports on industrial camps have been made to the Conference of State and Provincial Boards of Health for each of the past four years. The last report, made by myself and Dr. T. D. Tuttle of Montana, has not yet been published, but is practically ready for distribution. This report contains a digest of the laws and regulations controlling industrial camps, as nearly as we could determine them last year. So far as I know, practically all the western provinces of Canada and the states of Montana, Idaho, Utah, Louisiana and Washington have done something, at any rate, in attempting to control these camps through their state boards of health. Certain other states, notably Kansas and California, have made some investigations. Therefore it can scarcely be said that these camps are not supervised by any state department.

On page 628 of the *Public Health Reports* of March 28 will be found a copy of our rules and regulations relating to camps. I believe, although I have not the exact date at hand, that the rules of the Louisiana board have been in effect for several years. The Washington State Board of Health rules have been in effect since 1910. On page 35 of our last biennial report will be found a brief account of the work of this board on industrial camps, and also in the report of the sanitary inspector, page 112, is a more detailed reference to some camps inspected. In all, this department has investigated something over 500 industrial camps in the last three years and has had exceptionally good success in carrying out sanitary improvements. The investigations are far from what they should be because of lack of funds and field force, but we feel that in no other line of work have we accomplished greater results with the limited funds at our command. This subject is covered more fully in our last conference of state health officials' report, which will soon come from the press.

EUGENE R. KELLEY, M.D., Seattle, Wash.

Commissioner, Washington State Board of Health and
Bureau of Vital Statistics.

[COMMENT.—It is shown by our correspondent that several states are exercising supervision over the sanitation of labor camps. The facts on which our editorial was based were drawn chiefly from conditions existing in New York. The second sentence, of course, should have read: "Because in many states these camps are not controlled by any laws and are not supervised by any state department . . ." The danger to health from labor camps is evidently becoming widely recognized.—Ed.]

Suggestion for a Committee to Pass on New Medical Books

To the Editor:—May I suggest for the consideration of the American Medical Association at its coming meeting the desirability of appointing a committee for the purpose of passing on the intrinsic merits of medical publications placed on the market?

Publishing houses are financially interested in their output, and reviews are too often written hastily and sometimes perhaps with a personal bias; while no single reviewer associated with any periodical can be expected to possess such encyclopedic knowledge as is necessary in a field so varied and extensive. For these reasons thousands of physicians, and especially those far removed from publishing centers, are quite unable to decide what books may be most worthy of their attention.

An advisory or reviewing committee (like the Council on Pharmacy and Chemistry) of capable physicians, appointed by the Association because of their technical and practical knowledge of the various specialties and whose members may reside in different sections of the country, could without invidious distinction classify books in such way as to enable purchasers to make a more satisfactory selection than is now possible.

Many of our fraternity cannot afford to purchase largely, and it is often a great disappointment to discover, when too late, that a poor investment has resulted from an insufficient knowledge of, or extravagant claims made for, a much needed work.

The book review of such a committee should appear in the columns of THE JOURNAL, and coming from such authority would add greatly to its value for the busy practitioner or the young graduate who is bewildered by the many and too often misleading claims made for books. Approved works could be classified as are the medical colleges by the Council on Medical Education—A, B, C, etc.

G. WILDS LINN, M.D., Malvern, Pa.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

THE ASEPTIC THERMOMETER

In an editorial on "The Clinical Thermometer as a Vehicle of Infection" (THE JOURNAL, May 10, 1913, p. 1467), our readers were asked to suggest methods of making the thermometer aseptic. A number of replies have been received, which are summarized below.

DR. F. W. BREMER, Pittsburgh, Pa., has employed a thermometer case a little larger than the ordinary one, having an extra threaded collar to which a wick or gauze cover or "stocking" is attached. This cover is made thick and coarse enough to hold by its capillarity a quantity of 40 per cent. solution of formaldehyd which would keep the thermometer antiseptic at all times, both by contact and by its fumes. The thermometer, of course, has to be washed and dried both before and after use. At present, however, Dr. Bremer uses a roll of coarse paper in his thermometer case into which the thermometer fits tightly, the paper being soaked with formaldehyd solution.

DR. G. M. OLSON, Fargo, N. D., suggests that the ordinary hard-rubber thermometer case may be filled with alcohol, and if the top is screwed tight it will not leak and the case may be turned up so as to sterilize the entire thermometer. After use, the thermometer should, of course, always be washed in water.

DR. LOUIS J. SMITH, Percy, Ill., also has used the latter method for some time and believes it is ideal.

DR. H. M. FOLKES, Biloxi, Miss., for a number of years has carried with him a book of cigarette paper and a 2-dram vial of pure alcohol. When getting ready to take a patient's temperature, he takes a sheet of cigarette paper, saturates it with alcohol, and cleanses the thermometer just before use.

DR. E. T. BAKER, Moscow, Idaho, has designed, for the individual thermometer of the patient or the nurse, a metal receptacle, with a tight cap, containing a glass tube similar to a test-tube, which may contain any desired antiseptic. The whole outfit is to be fastened to the wall or some other convenient place in the hospital ward or sick-room.

DR. F. A. MCGREW, Delta, Colo., carries in his medicine case a small, flat, oblong metal box containing absorbent cotton and an ounce bottle filled with tincture of iodine diluted with an equal quantity of alcohol. After the thermometer has been used, some member of the family is requested to wash it in cold water; then a little pledget of cotton is moistened with the iodine solution and the thermometer is thoroughly washed with it. It is then put in the case without removing the excess of solution until the time of using the thermometer again.

DR. JOHN L. DRYER, Santa Ana, Cal., cleans the thermometer after use and then dips it into a 40 per cent. solution of formaldehyd, after which it is returned to the case and the cover tightly screwed down. Another plan is to wrap a thin film of absorbent cotton about the thermometer and dip it in 98 per cent. alcohol, returning it to the case as above.

DR. SAMUEL KENNEDY, Shelbyville, Ind., says that accurate and tested thermometers can be procured for \$3.50 per dozen or 29 cents each, and that it is not necessary to buy more expensive instruments. He keeps a large number of thermometers and carries a number of them with him on his rounds, using a clean thermometer for each patient. On returning to the office the thermometers are carefully washed with soap and water, rinsed in cold water and then allowed to stand in alcohol for about an hour. They are then returned to their cases, which are sterilized by boiling, to be used again the next day.

DR. HENRY B. HEMENWAY, Evanston, Ill., calls attention to a thin celluloid envelope or cover, which is supplied by the instrument dealers, into which the thermometer is slipped before being placed in the patient's mouth. This does not interfere with the correct registration of the temperature. The envelopes are cheap and a new one, of course, is used for each patient, although one may be used a number of times for the same patient.

DR. EDWARD J. BROWN of Minneapolis cuts a strip of blotting-paper $\frac{3}{4}$ inch wide and inserts it in the metal thermometer case. The thermometer, after use and washing, is dipped in compound cresol solution and placed in the case. The blotting-paper soon becomes saturated and causes continuous disinfection of the thermometer.

DR. FRANK R. HART, Santa Cruz, Cal., has devised a thermometer case made of hard rubber, consisting of an inner and outer tube. The inner tube is so made as to hold any ordinary-sized clinical thermometer. It screws into the outer case. The walls of the inner tube are punctured with many small holes through which the fluid antiseptic, contained in the outer case, penetrates by pressure and by capillary attraction, the holes being extremely small. Any desired antiseptic may be used and the thermometer is constantly moistened with the solution.

RATIO OF THE SEXES AT BIRTH

To the Editor:—1. What are the latest figures as to the ratio of the sexes at birth? I am especially interested in the incidence of the sexes in England and the United States, and also in other countries if statistics are available.

2. What evidence is there that the ratio changes after wars resulting in the deaths of many males, and also following famines or seasons of great plenty, etc.?

C. E. BENNETT, M.D., Aneta, N. Dak.

ANSWER.—1. This matter was discussed in THE JOURNAL, Aug. 15, 1908, p. 616. As a general statement, the average is 1,056 males to 1,000 females. Statistics of births have frequently been given in the Berlin and other foreign letters, and by consulting them recent statements in regard to the relation of the sexes may be obtained. The following, also, may be consulted:

Vigor and Yule: The Sex Ratios of Births in the Registration Districts of England and Wales, 1881-1890, *Jour. Roy. Statist. Soc., London*, 1906, xlix, 576.

Proportion of the Sexes in the United States, U. S. Census Bureau, Bull. 14, 1904.

Nichols, J. P.: Numerical Proportions of the Sexes at Birth, *Mem. Am. Anthropol. Assn.*, 1, Part 4.

Jones, H. R.: Industrial Employment of Married Women: Its Influence on Birth-Rate and Sex Ratio at Birth, *Lancet*, London, Aug. 10, 1912.

2. There seems to be some evidence in support of the statement that the proportion of the sexes varies with the condition of nutrition. The consensus of opinion, however, is that these conditions cause no alteration in the proportion of the sexes at birth. Some interesting statistics on this subject may be found in the following:

Marshall, F. H. A.: Physiology of Reproduction, London and New York, 1910, p. 648.

Newcomb, Simon: A Statistical Enquiry into the Probability of Causes of the Production of Sex in Human Offspring, Carnegie Institute, Washington, 1904, p. 27.

Von Mayr: Die Gesetzmässigkeit im Gesellschaftsleben.

Mayo-Smith, Richmond: Statistics and Sociology, New York, 1895, p. 73.

DESTRUCTION OF BEDBUGS AND COCKROACHES

To the Editor:—Please give me methods for the destruction of bedbugs and cockroaches, including formulas for preparations which may be applied to the beds and other hiding-places of these insects.

F. W.

ANSWER.—The destruction of bedbugs by fumigation with hydrocyanic acid gas is effective, but great caution must be observed. This method is not suitable for use by others than experts. One room at a time may conveniently be fumigated by sulphur candles, 2 pounds to the thousand cubic feet of air-space; the room should be shut tight and the sulphur burned in a coal-hod placed in a pan of water. Fumigation is required to kill all the bugs, as they are in the habit of concealing themselves in cracks behind wainscoting, under loose wall-paper, and in other places.

Brass or iron beds can be rid of bugs by the use of fire. The bed is removed to a concrete floor or out of doors, alcohol poured into all the crevices and immediately ignited. A burning newspaper may be passed under the springs. Rubbish, old