

fact it has been shown by Coppee,² Hill,³ and Dalziel and his colleagues⁴ that mains frequency is about the optimum frequency for sustained stimulations. Dalziel and his colleagues⁴ found that about 99.5% of men could let go of a wire carrying an alternating current (at 60 c.p.s.) of 8.8 mA. Little difference is to be expected with the mains frequency (50 c.p.s.) generally used in this country and Europe.

REFERENCES

- ¹ Dalziel, C. F., Ogden, E., and Abbott, C. E., *Trans. Amer. Inst. elect. Engrs.*, 1943, **62**, 745.
² Coppee, G., *Arch. int. Physiol.*, 1934, **40**, 1.
³ Hill, A. V., *Proc. roy. Soc. B.*, 1936, **119**, 305.
⁴ Dalziel, C. F., Lagen, J. B., and Thurston, J. L., *Trans. Amer. Inst. elect. Engrs.*, 1941, **60**, 1073.

E.S.R. in Osteoarthritis

Q.—*Can the sedimentation rate be increased in acute osteoarthritis?*

A.—Osteoarthritis is not a cause of raised sedimentation rate and should not be accepted as an adequate explanation of a raised E.S.R. unless all other probable causes have been excluded. In a patient with an acute arthritis a raised E.S.R. is most probably due to rheumatoid arthritis. In a survey¹ of 316 patients with osteoarthritis an E.S.R. above 15 mm. (Westergren) was found in only 9%, when obvious causes of a raised E.S.R. had been excluded. This, of course, does not mean that another cause was not present.

REFERENCE

- ¹ Fletcher, E., *Lancet*, 1944, **1**, 754.

Fluoroacetamide in Soil

Q.—*If ground treated with fluoroacetamide for the elimination of aphides on non-edible plants is used the following year for the cultivation of fruit or vegetables, is the consumer exposed to the risk of poisoning?*

A.—The persistence of fluoroacetamide in soil has been studied by David and Gardiner.¹ They showed that 0.01% solutions put into soil in pots were effective up to one week but not after two weeks. A stronger solution of 0.1% persisted for at least six weeks. However, under these conditions there was no leaching by rain. Since spontaneous decomposition does occur, this, combined with leaching by rain, should ensure that no significant amount of fluoroacetamide will persist in soil from one year to the next.

REFERENCE

- ¹ David, W. A. L., and Gardiner, B. O. C., *Bull. ent. Res.*, 1959, **50**, 25.

Diabetics and Rheumatic Disorders

Q.—*Which forms, if any, of the various rheumatic disorders can be induced in the experimental animal? Are diabetics less likely to suffer from rheumatic disorders than the rest of the population?*

A.—The most important form of chronic rheumatism (rheumatoid arthritis) has not yet been induced in the experimental animal. However, many forms of joint and connective-tissue disease have

been so induced, including degenerative joint disease, post-streptococcal disease resembling rheumatic fever with carditis, drug disease, joint diseases due to infection with organisms such as erysipelo-thrix, neuropathic joint disease, pulmonary osteoarthropathy, and a type of chronic disease resulting from injection of Freund's adjuvant and possibly an example of delayed hypersensitivity. Many of these types of arthritis are reviewed by Gardner.¹

Diabetics do not seem less likely to suffer from rheumatic disorders than the rest of the population, and indeed they have a special liability to develop a neuropathic Charcot-like condition of the joints of the feet² because of the peripheral neuritis which often occurs in inadequately controlled diabetics.³

REFERENCES

- ¹ Gardner, D. L., *Ann. rheum. Dis.*, 1960, **19**, 297.
² Jacobs, J. E., *J. Bone Jt Surg.*, 1958, **40A**, 1043.
³ Oakley, W., Caterall, R. C. F., and Martin, M. M., *Brit. med. J.*, 1956, **2**, 953.

Oil-adjuvant Influenza Vaccine

Q.—*Is it a reasonable policy for an employer to offer his employees vaccination against influenza in the autumn? Is it an advantage to use a vaccine which is a water-in-oil emulsion of antigens?*

A.—The occurrence of influenza epidemics can sometimes be predicted with reasonable accuracy. On such occasions a timely use of suitable influenza vaccines would certainly reduce the incidence of infection, and to offer vaccination to employees would be a reasonable policy. The advantages of water-in-oil adjuvant influenza A vaccines have been clearly demonstrated in trials conducted in the U.S.A.¹ and in this country.²

REFERENCES

- ¹ Meiklejohn, G., *J. Amer. med. Ass.*, 1962, **179**, 594.
² Himmelweit, F., *Brit. med. J.*, 1960, **2**, 1690.

Dermatitis from Nuts

Q.—*Are there any recorded cases of dermatitis caused by the handling of Brazil nuts? Is such a cause likely? In cases of dermatitis due to contact with cashew nuts is there any method of demonstrating that the patient is allergic? What precautions are advisable in the handling of cashew nuts?*

A.—Dermatitis from handling Brazil nuts was reported by Markson.¹ Eight women working in a candy factory suffered dermatitis of the hands and arms from handling the chopped nuts and showed a positive reaction to the oil from the nuts. Control subjects tested showed no reaction. One woman who had been engaged on the work for five years had become hardened to the contact and showed no positive test. This would suggest a primary irritant factor.

The cashew-nut tree is related to the poison-ivy, and oil from the nut-shells "is both irritant and sensitizing."² Patch tests to the oil would indicate the presence of allergy. So far as irritant effects are concerned protection, as with rubber

gloves used by Markson's patients, should be effective.

REFERENCES

- ¹ Markson, L. S., *Arch. Derm. Syph.*, 1942, **46**, 831.
² Sutton, R. L., *Diseases of the Skin*, 1956, 11th ed. Kimpton, London.

Sensitivity to Plants

Q.—*Primula obconica is well known for its liability to produce a dermatitis on the hands of susceptible individuals. What other common wild and garden plants are likely to give rise to rashes on the skin, and what reasonable precautions can the gardener take who is exposed to risk?*

A.—*Primula obconica* is the commonest cause of plant dermatitis in Great Britain, and all varieties, because of their primin content, are equally liable to cause trouble in a sensitized patient. Other common garden plants which cause dermatitis are tulips, particularly the variety Rose Copeland, hyacinths, daffodils, or any of the species of the genus *Narcissus*, chrysanthemums, and geraniums. Sometimes with chrysanthemums the degree of sensitivity is widespread, as with primulas, sometimes the sensitivity is very narrow and occurs to one variety only.¹ In Britain, although a large number of wild plants can give rise to dermatitis,² sensitivity is not such a problem as it is in North America, where poison ivy is such an important sensitizer. Those in special occupations, such as the professional horticulturist, the hop-picker, or celery-handler, are particularly apt to develop contact sensitivity. Occasionally the plant dermatitis presents as a solar dermatitis. Very rarely the dermatitis may be seasonal and due to pollen of the *Compositae*.

It is not easy for the gardener to take effective precautions except to remember that some plants are strong sensitizers and sensitization dermatitis occurs with direct contact of the skin of the plant. Gloves are of some use, but barrier creams to the hands are contraindicated since the offending allergenic substances are generally taken to the face and neck.

REFERENCES

- ¹ Rook, A., *Brit. J. Derm.*, 1961, **73**, 283.
² ——— *Brit. med. J.*, 1960, **2**, 1771.

The Pituitary and Steroid Therapy

Q.—*Is there any clinical or experimental evidence that the pituitary has a role in the therapeutic effect of systemic steroids in collagen, allergic, and leuko-aemoid conditions?*

A.—I do not know of any evidence, either clinical or experimental, that the pituitary has a role in the therapeutic effect of systemic steroids in such conditions as collagen diseases, allergic disorders, or leukaemia.

Correction.—The name "freon," which denotes a refrigerating substance and was mentioned in a leading article on nuclear submarines (February 16, page 418), is a trademark, and we regret not distinguishing it as such.