

even this rule is not invariable, for absolute alcohol will be found under *alcohol*, the qualifying epithet being considered colloquial and unimportant and the noun the essential thing. We may seem to have given an excess of space to the mere consideration of the way in which this Dictionary has been arranged, but this is not so. More than all other books of reference, a dictionary must be properly arranged to be of the slightest use, and by its arrangement it will certainly stand or fall. It seems to us that, although there can be no perfect system, Dr. Foster has done his very best and has got as near perfection as possible, and his numerous cross-references make it certain that in the end whatever we look for will be found.

We have tested the contents of the Dictionary in the only practical manner by which such a work can be tested, by selecting words, sometimes at random and sometimes for special reasons, from other dictionaries, books of reference, and general and special medical treatises in three languages, and then referring to Dr. Foster's dictionary for information on those words. As a result we have pleasure in saying that we have been unable to find any mistakes, and the only omissions have been some of those triple-decked words which the German *savant* handles so freely, but which all the rest of the world treat under their component parts. We must, however, take some exception to the amount of space allotted to different subjects. For example, a short half of a column on the chemical action of *chloroform*, supplemented by two lines under the heading *anæsthesia (surgical)*, is not adequate treatment of this important subject in a dictionary of this colossal size; and the inadequacy becomes more patent when we find, *inter alia*, two columns and three-quarters devoted to *colocynth* and one and a half to *impetigo*. But these are small faults, and Dr. Foster's task has been a very heavy one, and has so far been carried out on the whole in a style that merits the warmest congratulation. His publishers have helped him by issuing the volumes in a sumptuous manner, with copious illustrations of really high merit, those in exemplification or adornment of the osteological and botanical subjects calling for particular mention.

Darwinianism: Workmen and Work. By JAMES HUTCHISON STIRLING, F.R.C.S. and LL.D. Edin. Edinburgh: T. and T. Clark. 1894. Pp. 358.

THE first part of this work gives an account of the predecessors of Darwin and a description of Darwin himself; whilst the second part furnishes an account of the work done by Darwin, the mode in which the "Origin of Species" was ushered into the world, the advantage it possessed in being in part supported by such men as Lyell, Hooker, Asa Gray, Wallace, and above all by Huxley, and also a criticism upon it. The author is entirely opposed to the hypothesis of Darwin. The style in which he writes is very disjointed; there are parentheses and dashes and elisions enough to make the hair of Cobbett stand on end, and in some places it is obscure, but on the whole it constitutes a pungent criticism of Darwin's views. Dr. Stirling has taken infinite pains to arrange parallel passages in Darwin's works and arrays them against him in rather formidable fashion. As a boy Darwin himself tells us that he painted polyanthus to cause people to believe that they were new kinds and resulted from watering them with coloured fluids, and also that he gathered and hid fruit to make believe they had been stolen and concealed, and all for the purpose of creating excitement. This failing, Dr. Stirling thinks, persisted in adult life. He contends that much of Darwin's work was of the nature of a compilation, in which the correctness of the statements was not always duly ascertained, and that he won over the great naturalists who in part supported his views by judicious com-

mendation of their work and implied coincidence of view. Dr. Stirling calls in question the struggle for existence, asks how it is that the carnivora have not altogether abolished their prey, refers to the harmony in which many social animals live and the absence in them of any fear of enemies, and gives an amusing account of the gradual development by evolution of a woodpecker in illustration of Darwin's method of arguing.

Speaking of the teleological aspect of Darwin's work, Dr. Stirling considers that it was the one special pride of Darwin to think that he had brought the organic world to the same level as the inorganic world, and that "purpose"—at least, intelligent "purpose"—might be altogether ignored. He also thinks that some of those who were supposed to be adherents of the Darwinian theory of evolution by natural selection—such as Kingsley, Asa Gray, and Lyell—were by no means at one with him on this point, and more or less completely held to the idea of "design by an intelligent Creator." A chapter is devoted to a criticism of Natural Selection. Darwin, visiting the South American pampas, found, and was strongly impressed by, the circumstance that they swarm with gigantic fossil remains of land animals—for example, of the glyptodon—where now only the little congenerous armadillo is found. Dr. Stirling asks, "Is this the survival of the fittest?" and quotes Pictet, who says, "The theory of Darwin agrees ill with the history of the types of clearly defined, sharply cut forms, which seem to have existed only for a limited period," such as the flying reptiles, the ichthyosauri &c. Dr. Stirling makes much, as he has a right to do, of Darwin's admission that the first progenitor or progenitors of living things must have been created or at least must have "appeared," but if these were created why hesitate to admit that the others might have been so too. He contends that Darwin was in a general way struck by some curious fact or phenomenon, that he proceeded to raise a hypothesis upon it, then piled up a miscellaneous collection of facts to support his hypothesis, and finally thought he had proved it. As a serious refutation of what are broadly known as the Darwinian doctrines this book has no real status; but it is an admitted fact that the theory of natural selection will not in all its details quite defy criticism. Temperate criticism will not only do no harm to the immense masses of fact proved upon Darwinian hypothesis, but it should stimulate evolutionists to eliminate all possible sources of error and confusion from their work.

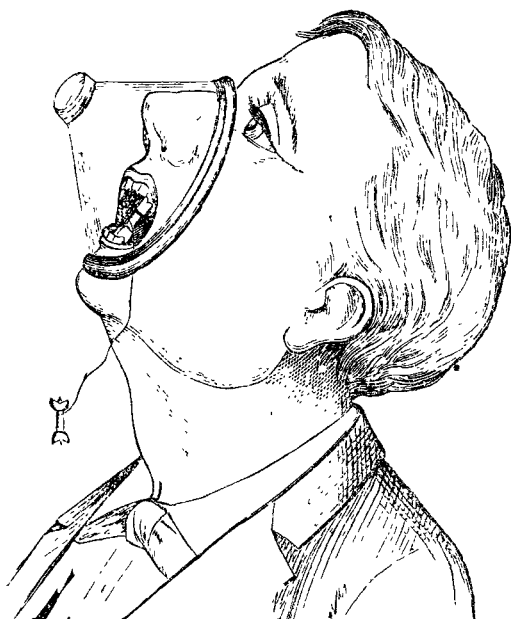
New Inventions.

CELLULOID FACE-PIECES AND MASKS FOR THE ADMINISTRATION OF ANÆSTHETICS.

THE value of celluloid in the construction of various surgical appliances is gradually being recognised. For the last two or three years I have had in constant use a set of face-pieces and masks made of this substance. They have therefore stood the test of time, and, moreover, have quite realised my expectations. The face-piece (Fig. 1) is made of the thinnest possible material, so that it is not only transparent, but can also be bent to adapt itself to the face; its shape is that represented in the figure. The face-end is fitted with a removable rubber pad inflated to exclude air, and it is mostly used in the administration of nitrous oxide gas. The mask (Fig. 2) is made of quite stout material, and its shape is that which when the material is of leather is, I think, known as Rendle's mask. It is freely perforated at one end, and the other end fits lightly over the nose and mouth. A loosely fitting flannel bag serves to protect the face and to hold in position the honeycomb sponge upon which the anæsthetic is poured. This is the mask that I usually employ for the administration

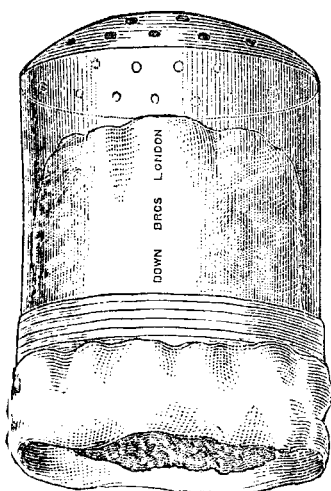
of the A.C.E. mixture or to maintain ether anæsthesia. The advantages claimed for these face-pieces and masks over the ordinary leather ones are: 1. They are more cleanly. Provided that warm water is not used, they can be frequently washed and scrubbed. The material itself being absolutely non-absorbent, they can easily be kept free

FIG. 1.



from unpleasant odour. With leather this is almost impossible, for, even if covered with rubber, frequent washing quickly ruins them, and at best they are seldom free from smell. 2. The face-piece being transparent, one can obtain a fair view of the mouth even during the induction of anæsthesia, and can see, for instance, whether the mouth-

FIG. 2.



prop maintains its position. The masks, being made of thicker material and having a flannel bag, are of course not transparent. It is, however, but seldom that the mouth is propped open when this particular form of inhaler is likely to be used. 3. They are more sightly. This, of course, is a minor advantage, but it will not be the less appreciated either by the patients or by those who administer anæsthetics at all frequently. 4. They are lighter. In respect to the face-pieces the advantage is about an ounce, and in respect to the masks nearly four ounces, in favour of the celluloid. As already mentioned, they should not be washed in warm water, or they will lose their shape, nor should they, for the same reason, be dried near a fire. In using the masks, too, the sponge should not be over-saturated, or the flannel bag will stick to the mask; but these are points against which no careful anæsthetist needs to be warned. These face-pieces and masks are made in several sizes and are kept in stock by Messrs. Down Bros., to whom my best thanks are due for the care and trouble they have taken in carrying out my suggestions in the matter.

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Anæsthetist and Instructor in Anæsthetics
at King's College Hospital, &c.

Weymouth-street, Portland-place, W., Dec. 19th, 1893.

AMMONIUM CHLORIDE INHALER.

We have received from Messrs. Hockin, Wilson, and Co. of New-inn-yard a sample of their portable chloride of ammonium inhalers. These commend themselves chiefly by their simplicity and reasonable price. They are constructed primarily on the ordinary model—that is, a flask having a doubly-pierced cork contains the reagents for generating the gas. The acid being placed within the bottle, a few drops of ammonia are poured upon a sponge fixed in a funnel in

one of the apertures, and the liberated neutral gas is conducted from the other aperture along a flexible tube, which is also guarded at the outlet by a sponge, into the mouth. This inhaler is a cleanly and convenient little apparatus, which, evidently, might often be of service in the sick-room.

Analytical Records

FROM

THE LANCET LABORATORY.

GRAND VIN BRUT: CHAMPAGNE SANS SUCRE, AND COCA
TONIC CHAMPAGNE (SANS SUCRE), LAURENT-
PERRIER, REIMS.

(HERTZ AND COLLINGWOOD, 4, SUSSEX-PLACE, LEADENHALL-
STREET, E.C.)

In spite of the difficulty which must attend the production of a satisfactory champagne quite free from sugar, so that the qualities for which the normal product is so esteemed may not be impaired, this specimen, while exhibiting all the choice qualities of a high-class wine, was found to show no departure from the usual composition of this well-known brand, save, of course, in one respect—viz, its freedom from sugar. Its composition, compared with ordinary champagne, is therefore of interest, and is as follows: alcohol, by weight 10.23 per cent., by volume 12.68 per cent., equal to proof spirit, 22.22 per cent.; extractives, 2.09 per cent.; acid equal to tartaric acid, 1.05 per cent. Thus it is free from excessive extractive substances, and, according to other tests, contains barely a traceable quantity of objectionable saccharine matters, both of which have hitherto rendered champagne one of the wines forbidden in the dietary of the diabetic. Champagne, inasmuch as it contains a large proportion of sugar, varying in amount from 4 to 12 per cent., is, of course, ranked amongst sweet wines, and is to be avoided partly on that account by diabetic patients. In ordinary champagne this sugar is chiefly derived from added liqueur, but in the so-called Brut wines no liqueur is supposed to be used, and the sugar then present is a residue of the original sugar of the grape which has escaped conversion into carbonic acid gas and alcohol in the fermentation process. Apart from its freedom from sugar, this wine contains also a wholesome and palatable proportion of the acid constituents of the grape, a feature of some importance also to the diabetic patient, since it has been observed that light acid wines exercise a powerful retarding influence on salivary digestion, impeding the digestion of starchy materials and the consequent production of sugar. It is a brilliant, sparkling wine, possessing all the agreeable qualities of a high-class champagne, and yet one which may be taken, according to our analytical observations, in approved quantity where strong alcoholic and saccharine drinks are prohibited. Equally satisfactory is the coca tonic champagne from the same growers, which on analysis exhibits a similar composition to the above (sans sucre) except for the addition of a desirable proportion of coca leaf principles.

HOP GIN.

(DISTILLED BY J. S. SMITH, DRUCE, AND CO., LIMITED, PHENIX
DISTILLERY, LONDON.)

Careful examination as to the taste and colour of this novel product shows at once that it is not ordinary gin. It is a bright amber-coloured spirit, possessing a delicacy of bitter flavour characteristic of the hop. The bitter principles may be more readily recognised by extracting the diluted gin with ether. The ether on evaporation then yields a small residue, which has a marked but fleeting bitter taste. It is not generally known that the bitter principle of the hop, unlike many other bitters, gentian for example, is a glucoside,