fore, that the marriage ceremony must have been a very important one in ancient Egypt. Egyptian women marry early in life, sometimes at 10 or 11, oftener at from 12 to 14 years of age. No doubt the same custom prevailed in ancient times. At 13, or even earlier, a girl may be a mother, and from 40 to 45 she becomes incapable of bearing children. When she becomes incapable of bearing children the husband often takes a new wife: this may perhaps explain why the Sed festival was called the 30 years' festival; for if a girl is married, say at 12, she ceases to be able to bear children at 42, just 30 years after her marriage, and her husband takes another wife.

If the hereditary princess predeceased her husband, then it must have been necessary for the king to marry again so as to retain the kingship: this would explain the fact that the Sed festival was sometimes celebrated in years earlier than the 30th year of a king's reign. It also explains why a king sometimes married his own eldest daughter. If the hereditary princess survived her husband, then Mr. Newberry's theory explains why she is sometimes married to her husband's successor. This theory would also give a reason for it being a kind of repetition of the king's coronation and for its procuring for the king a new lease of power.

There is yet another fact which suggests the theory that the Sed festival was a marriage festival. It was celebrated in a booth or tent (called *Sed*) raised high above the ground; and with Semitic peoples the tent plays a very important part in marriage ceremonial, as Robertson Smith notes in his "Kinship and Marriage," p. 198 ff.

Chemistry in Industry.[1]

NATURAL science — and in this connexion chemistry must be given a position of great prominence—is by far the most important dynamic factor in human progress. Notwithstanding its liability to abuse, its discoveries have, on the balance, made enormously for the greater good and greater happiness of the human race.

The direct utilisation by the State of the services of the professional chemist is a matter not only of immediate concern to chemists themselves, but also of high importance to the community at large, and it is one of the functions of the Institute of Chemistry to ensure that the relations between the appointing authorities and those who hold official chemical positions are of a satisfactory character. Unfortunately, some public bodies do not appear to be aware of the lengthy and expensive nature of the chemist's training or of the difficulties and responsibilities connected with his work, and consequently the advertised conditions of some public posts are not commensurate with the importance of the services demanded. There is a tendency on the part of local authorities to utilise the services of unqualified or imperfectly trained persons for carrying out what are regarded as simple routine processes, a practice against which the council of the Institute has protested vigorously on the ground that it constitutes a serious danger to the community and involves a waste of public money.

The disinterested zeal of the scientific worker is without parallel in the whole world, but it is not wise for any country to presume too much on this disinterestedness. Science is one of the greatest and freest of all givers, but it has a right to demand that recognition in the councils of the nation to which it is entitled. The indirect effect of proper State treatment is very great and the rulers of Germany know this well. A leading German industrial chemist said recently that notwithstanding Germany's position of virtual bankruptcy, the State, at the instigation of the commercial committee of the Reichstag, had come to the help of the great chemical and physical societies, particularly to that of the Kaiser Wilhelm Institute, and if the State could not continue financial aid, the German people themselves must give their last mark to maintain science.

Although the supply of qualified chemists exceeds, for the moment, the demand, there is no cause for serious alarm. The profession attracted a larger number of young men during the last four years than in any previous corresponding period. Notwithstanding the increased output from the colleges and the intense industrial and commercial depression, the new members of the profession are being steadily absorbed. This absorption may be taken as a definite indication that chemistry is more highly valued by the manufacturer than formerly, and that the leaders of industry and commerce are turning more and more to science to assist them in the solution of their various problems.

[1] From an address delivered to the Institute of Chemistry at the annual general meeting on March 1, by Mr. A. Chaston Chapman, F.R.S.

An Intestinal Parasite of Man.

WE understand that Sir Ronald Ross is engaged at the Ministry of Pensions in the investigation of *Giardi intestinalis*, often known as *Lamblia intestinalis*, which, of the three or four common flagellates inhabiting the intestine of man, has the greatest claim to pathogenicity. Moreover, it differs from the others in being an inhabitant of the duodenum and upper part of the small intestine instead of the large intestine. It is probably the first parasitic protozoan to have been observed, for, as Dobell has pointed out, the famous Dutch observer Leeuwenhoek saw it in his own stools so long ago as 1681. From that time down to the present day there has been much controversy as to the significance of its presence in the human intestine. Some regard it as a definitely harmful organism, while others believe that it does not damage its host in any way.

The frequent occurrence of the flagellate in enormous numbers in certain cases of mucous enteritis seems to suggest that it may sometimes be pathogenic, though, like parasitic amœbæ and bacteria which are known factors in disease, it often occurs in perfectly healthy individuals, who are to be regarded as carriers. American workers have brought forward evidence that *Giardia intestinalis* may invade the bile duct and gall bladder and cause irritation in these organs. Flagellates belonging to the same genus occur in domestic animals, such as dogs, cats, rats, and mice, but it appears that these are distinct from the human form, though Grassi and others believed that human beings became infected by ingesting the encysted forms of the flagellate which escape in large numbers in the dejecta of these animals. Careful experiments have, however, shown that it is not possible to infect animals with the human parasite, and slight morphological differences point to the existence of a number of distinct species.

Reproduction of the flagellate is by a complicated process of binary fission. The organism also becomes encysted in ovoid cysts within which division into two takes place. These cysts are found in the dejecta, and are responsible for the spread of infection. It is only during periods of diarrhœa that the free-swimming flagellates occur in the stool, so that infection of human beings is generally recognised by the discovery of the cysts. There is no known method of ridding a human being of infection, and if it is correct that the flagellate may sometimes damage its host, the outlook for these unfortunate individuals is not a bright one.