

other yellow plants which produced both kinds of seeds. To account for these facts Mendel postulated a theory of heredity in which the colour, form, and outline of the seeds were made to depend each on specific "determinants" supposed to be present in the ovules and pollen.

THEORY OF SEGREGATION.

These mixed determinants in fertilization showed (it was postulated) some repulsion or segregation *inter se*, and in one generation certain determinants grew potent while others became latent. By showing that union of the various determinants occurred according to the law of probability, Mendel was able to account for some of the actual facts and numerical proportions obtained by interbreeding various races. Similar results occurred with long smooth peas crossed with deeply-wrinkled peas. Roundness was dominant in the hybrids of the first generation, and the issue of these hybrids in the third generation were a mixed progeny in which there were three long smooth to one wrinkled pea. These conditions of colour and shape are independent in transmission, and therefore complex segregations may occur in the hybrid issue. Mendel postulated a theory of "gametic purity" to account for the facts.

THEORY OF GAMETIC PURITY.

In the seventh lecture Professor Weldon referred to the Mendelian theory of gametic purity, which could not be reconciled with the facts of heredity in human races and families as formulated by Galton and Pearson. "The more we know of the ancestry of men, dogs, plants," said Professor Weldon, "the more accurate would be our prediction of what the progeny would be." Dominance of each individual blastomere, producing a perfect larva, occurred when the two cells of a pair of equipotential blastomeres were separated. The power of reproduction became similarly and locally dominant in lower animals when a limb or organ was lost. Dominance and its reversal did not always follow Mendel's formula—an extensive series of experiments carried out by Czermak of Vienna, and confirmed by Professor Weldon, on Austrian and English peas of various kinds showing facts of segregation of characters contrary to and irreconcilable with Mendel's law. Ancestral characters long latent in a race may become dominant (reversion or atavism) by the "shock" of crossing with another race.

GALTON'S THEORY OF HEREDITY.

In the eighth lecture Professor Weldon referred to another long series of experiments by Czermak, parts of which were repeated and confirmed by himself, which dealt with *Pisum sativum*, a white-flowered, and *P. arvense*, a red or purple-flowered pea, carried over six or seven generations, with results as regards dominance, frequency, and segregation of characters, explicable only on Galton's theory of ancestral heredity, which he (Professor Weldon) therefore accepted as the present nearest approximation to the facts of heredity.

THE MIDWIVES ACT.

THE TRAINING OF MIDWIVES. *Boards of Guardians.*

THE Local Government Board has issued a circular to all Boards of Guardians calling attention to Section C. of the rules of the Central Midwives Board which regulate the course of training of midwives. The circular also points out that no application for admission to the Roll of Midwives under Section II of the Midwives Act can be received by the Central Midwives Board after March 31st next. The Board requests the guardians to acquaint any officer in the guardians' service whom it may concern with the effect of the Section referred to, pointing out that no person will be admitted to the Roll of Midwives after the above-mentioned date unless she possesses the qualifications laid down in the rules of the Central Midwives Board.

London.

It is proposed by the Education Committee of the London County Council to open classes in hygiene for the instruction of women engaged as midwives provided that not less than twenty applications are received from persons willing to attend. It is stated that under Section II of the Midwives Act, 1902, any woman who has been for at least one year in bona-fide practice as a midwife prior to July 31st, 1902, may claim certification under the Act. Thus a large number of unqualified women, who hold no certificate of proficiency from any examining body, are now claiming admission to the

Midwives' Roll. The admission of these untrained women to the Roll ceases on March 31st, 1905. A rough census of the midwives now practising in London who may avail themselves of Section II of the Act places the number at 500.

East Sussex Council.

A report placed before the Committee of the East Sussex County Council by the County Medical Officer of Health stated that up to the end of November 72 midwives resident in East Sussex had been certified and enrolled. It was probable that the number of certified midwives resident in the county by March 31st would not exceed 100. For the needs of the poorer classes that number was insufficient. The Committee resolved that a woman be immediately employed to visit and explain to persons practising or proposing to practise as midwives, and who had not yet been certified under the Act, the necessity, if they proposed to practise as midwives after March 31st, of being certified before that date. It was also resolved that it was expedient to delegate the powers and duties of the County Council under the Midwives Act, 1902, to district councils. The Committee recommended that a woman inspector be appointed to assist in the administration of the Act throughout the administrative county, at a salary not exceeding £100 per annum, payable quarterly, with travelling expenses not exceeding £30 per annum.

Councillor Thornton reminded the Council that at the last meeting the Committee recommended that the powers under the Act should be delegated permanently to the Committee. A statement was made by a member that he believed the district authorities were willing to do the work for nothing, provided the powers were delegated to them. In consequence, inquiries were made of the district authorities, with the result that of the 26 authorities 15 were unwilling to undertake the duties, six would do so provided the county bore the expense, three would do so for nothing on condition that they did not pay anything to the county rate, and only one was willing to administer the Act for nothing. He contended that it was time the Act was adopted, and pointed out that East Sussex was the only county which had not come to a decision. He also showed that the vast majority of counties in England and Wales had decided to retain the powers in their own hands, and then reminded the Council that at the last meeting it was suggested that if the powers were retained it would be necessary for the county medical officer to interfere in the work of the district medical officers; but he suggested that there was no need for that.

THE OBSTETRICAL SOCIETY'S EXAMINATION FOR MIDWIVES.

The last examination of midwives held by the Board established by the Obstetrical Society of London for the purpose was held last week, concluding with the oral examinations on February 23rd and 24th. There were 674 candidates, the largest number ever present in the records of the Board; 559 passed, and will receive the Society's certificate. Since the institution of the Board in 1872 the grand total of candidates amounts to 12,805, out of which 10,581 have received certificates.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ANNUAL MEETING.

THE annual general meeting of the Royal Medical and Chirurgical Society was held in the Society's Hall on March 1st, Sir DOUGLAS POWELL, Bart., President, being in the chair.

Annual Report.

According to the report of Council, which was read by the SENIOR SECRETARY (Dr. Newton Pitt), the last financial year of the Society's first century found its affairs in a more flourishing condition than ever before. In respect of attendance at the meetings alone were the conditions unsatisfactory, and in order to improve this it had been decided to issue abstracts of papers in advance to any Fellows who asked to have them; that authors should be invited to supply list of persons interested in their papers, who should receive abstracts and official invitations to be present; and that at least one special discussion should be held each session. In connexion with the centenary celebrations, a special meeting was to be held on the centenary day, May 22nd, when the President would deliver a special address and welcome in the name of the Society the new honorary Fellows. The Marshall Hall Prizeman, Dr. Head, would give an address on the afferent nerves under a new aspect, on May 23rd, at 5 p.m.; at a banquet to be held on May 22nd at the Hotel Cecil, the