

commenting on this report the *London Times* says:

"Attention has been prominently directed, by the report of the Committee on Physical Deterioration, to what is there described as the 'urbanization' of the people; and hence few portions of the volume now issued will be of more general interest than those which set forth the extent to which this process is actually being carried on. We find, in the first place, that the population has decreased in the five English counties of Huntingdonshire, Nottinghamshire, Westmoreland, Oxfordshire and Herefordshire, and in the five Welsh counties of Montgomeryshire, Cardiganshire, Flintshire, Merionethshire and Brecknockshire; the decrease ranging from 7.04 per cent. in Huntingdonshire to 1.62 per cent. in Herefordshire; and from 5.08 per cent. in Montgomeryshire to 0.17 per cent. in Brecknockshire. In the remaining forty-five English and Welsh counties there was an increase of population, ranging from 45.11 per cent. in Middlesex to 0.003 per cent. in Cornwall; but the increase in Radnorshire, which was only apparent, and is said to have veiled a real decrease, was due to the presence in the county of a number of men who were temporarily engaged in the construction of waterworks for the Corporation of Birmingham. Particulars are given for 1,122 urban and for 664 rural districts, and it appears that the aggregate population of the former in 1901 was 25,058,355, and of the latter, constituting the remainder of the country, 7,469,488; so that the persons enumerated in urban were to those enumerated in rural districts as 335 to 100; the proportions in 1881 and in 1891, in the urban and rural districts as constituted at those periods, having been respectively 212 and 258 to 100. The increase in the proportion resident in urban districts is attributed partly to an actual growth of population within those districts as they existed in earlier census years and partly to the growth of the districts themselves through the absorption of areas which were previously rural. It was pointed out in 1891, and is still the case, that a considerable number of the urban districts, although technically urban, are distinctly

rural in character, being in many cases small towns situated in the midst of agricultural areas on which they are dependent for their maintenance as business centers. At the recent census there were 215 urban districts with populations below 3,000, 211 with populations between 3,000 and 5,000, and 260 with populations between 5,000 and 10,000; and the report follows the example of its predecessor in stating the proportions between urban and rural dwellers from these three points of view. If we class with the rural districts all those urban districts with populations below 10,000, the aggregate population of the remaining urban areas numbered 21,959,998, the population of the same areas in 1891 having been 18,964,882, and the rate of increase in the decennium being 15.8 per cent. In the rural areas, with the added small urban districts, the population increased from 10,037,643 in 1891 to 10,567,845 in 1901, or an increase of 5.3 per cent. There are, nevertheless, many rural parts in which actual depopulation has occurred, and these are found in the rural and small urban districts of twenty-three counties; while, although there has been a small increase of population in rural areas in the aggregate, there has, nevertheless, been a very considerable drain on the natural growth of the population of these areas. A table is given showing that, in a rural population of nearly five and a half millions, the natural growth by excess of births over deaths was 565,253 in the ten years preceding the census of 1901, but that the actual increase of population was only 64,599, showing a loss by migration of 500,654, equal to 9.1 per cent. of the population of 1891."

#### THE CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

THE Carnegie Trust for the universities of Scotland has made awards for the year 1904-5 of twenty-four scholarships, twelve fellowships and thirty-five special grants, the total value of which is somewhat more than \$25,000. The fellows are as follows:

*Physical*.—(1) Dugald B. McQuistan, M.A., B.Sc., Glasgow.

*Chemical*.—(2) Charles E. Fawsitt, B.Sc., Edinburgh (second year); (3) James C. Irvine, B.Sc., D.Sc., St. Andrews (second year); (4) William Maitland, B.Sc., Aberdeen (second year).

*Biological*.—(5) John Cameron, M.B., Ch.B., Edinburgh (second year); (6) Francis H. A. Marshall, B.A., Cambridge, D.Sc., Edinburgh; (7) Henry J. Watt, M.A., Aberdeen.

*Pathological*.—(8) Carl H. Browning, M.B., Ch.B., Glasgow; (9) John C. G. Ledingham, M.A., B.Sc., M.B., Ch.B., Aberdeen; (10) S. A. K. Wilson, M.A., M.B., Ch.B., Edinburgh.

*Historical*.—(11) Richard Bell, M.A., B.D., Edinburgh; (12) Duncan MacKenzie, M.A., Edinburgh (second year).

Grants for research are made as follows:

*Physical*.—(1) George A. Carse, M.A., B.Sc., Edinburgh; (2) Professor MacGregor, Edinburgh University; (3) Thomas Oliver, B.Sc., Edinburgh; (4) William Peddie, B.Sc., lecturer in natural philosophy, Edinburgh University.

*Chemical*.—(5) Professor G. G. Henderson and Dr. Gray, Glasgow and West of Scotland Technical College (second year); (6) A. N. Meldrum, D.Sc., assistant in chemistry, Aberdeen University (second year).

*Biological*.—(7) James H. Ashworth, D.Sc., assistant in zoology, Edinburgh University (second year); (8) John Beard, D.Sc., lecturer in embryology and invertebrate zoology, Edinburgh University (second year); (9) Cyril Crossland, B.A., B.Sc., assistant in zoology, St. Andrews University; (10) Professor J. Cossar Ewart, M.D., Edinburgh University (second year); (11) Professor Paterson, West of Scotland Agricultural College, Glasgow; (12) John Rennie, D.Sc., assistant in zoology, Aberdeen University (second year); (13) William G. Smith, B.Sc., St. Andrews; (14) David Waterston, M.A., M.D., assistant in anatomy, Edinburgh University (second year); (15) John H. Wilson, D.Sc., St. Andrews (second year); (16) Professors R. Patrick Wright and A. N. M'Alpine, West of Scotland Agricultural College, Glasgow.

*Anatomical*.—(17) Edward B. Jamieson, M.B., Ch.B., demonstrator of anatomy, Edinburgh University.

*Pharmacological*.—(18) Professor R. Stockman, Glasgow University.

*Pathological*.—(19) James Kerr Love, M.D., Glasgow (second year); (20) Edwin Bramwell, M.B., F.R.C.P.E., Edinburgh; (21) Professor Carstairs C. Douglas, B.Sc., M.D., Anderson's College Medical School, Glasgow (second year); (22) Alexander H. Edwards, M.B., C.M., Edinburgh

(second year); (23) Alexander Goodall, M.D., Edinburgh (second year); (24) J. M. Kirkness, M.B., Ch.B., Edinburgh; (25) Professor Robert Muir, M.D., Glasgow University (second year); (26) Peter Paterson, M.B., assistant in surgery, Glasgow University; (27) W. B. Inglis Pollock, M.B., Ch.B., Glasgow; (28) Benjamin P. Watson, M.B., Ch.B., Edinburgh; (29) John M. Bowie, M.D., Edinburgh; (30) James Scott, M.D., Edinburgh (second year); (31) Douglas Chalmers Watson, M.B., F.R.C.P.E., Edinburgh.

*Historical*.—(32) William Cramond, M.A., LL.D., Aberdeen (second year); (33) Professor W. M. Ramsay, M.A., D.C.L., LL.D., Litt.D., Aberdeen University (second year).

*Economical*.—(34) William R. Scott, M.A., D.Phil., lecturer in political economy, St. Andrews University.

*Linguistic*.—(35) Kenneth MacKenzie, M.A., Glasgow.

#### SCIENTIFIC NOTES AND NEWS.

DR. HERMANN KNAPP, emeritus professor of ophthalmology in Columbia University, has celebrated at Giessen the fiftieth anniversary of his doctorate, when the diploma was renewed.

ALBERT VON REINACH, the geologist of Frankfurt on Maine, has been made an honorary doctor of philosophy by the University of Marburg.

PROFESSOR V. M. SPALDING has resigned the chair of botany in the University of Michigan. His address after October 15 will be Tucson, Arizona, where he will continue his work begun last year at the Desert Laboratory.

PROFESSOR W. H. PICKERING, of Harvard University, is at present at Mt. Lowe Observatory, California, continuing his observations on the moon.

DR. J. WESLEY HOFFMANN is here studying the cultivation of cotton on behalf of the British government.

PROFESSOR MELVILLE T. COOK, of the department of biology at De Pauw University of Indiana, has been made chief plant pathologist by the Cuban government.

DR. SIDNEY D. WILGUS, of New York City, has been appointed by the State Commission in Lunacy as chief examiner, under the law passed by the last legislature creating a state board of alienists.