belonged to the Parasitica and the ants. Of the Diptera the most abundant families represented were the Chloropidæ with 2,227 specimens and the Chironomidæ with 701 examples. Culicidæ were represented by 111 specimens belonging to seven genera.

Among apterous forms, 1,461 spiders were captured, one example occurring at 15,000 ft. A single example of *Pulex irritans* at 200 ft. is recorded. Numerous Apterygota are mentioned, besides wingless Hymenoptera, etc., and larvæ.

Among the various factors governing the distribution of insects in the upper air the size, weight and buoyancy of individual forms are discussed together with the influence of temperature, dew-point, barometric pressure, wind direction and velocity, convection, light intensity, etc. Of these, and other factors, temperature is regarded as the most important agency regulating the numbers of insects to be found in the air at any given time.

With the great number of aeroplanes now in regular use in the world, numerous ways are offered for insects to find shelter in these vehicles and so become carried from one territory to another. New means for the dispersal of dangerous insect pests are thus afforded. Air currents are also believed to be an important accessory factor in the distribution of the destructive pink bollworm in the United States. During the five years of flying to collect insects, many kinds of these creatures were found either in the cockpit, fuselage or cabin of the planes used, but no special collections were made.

OBITUARIES

General the Hon. C. G. Bruce, C.B.

BRIGADIER-GENERAL THE HON. C. G. BRUCE died on July 12 at the age of seventy-three years.

Charles Granville Bruce, born in 1866, was a son of the first Lord Aberdare. Probably no man since the time of the Schlagintweits had a wider knowledge of the Himalaya than Bruce. No one ever had so intimate a knowledge of so many of its peoples. Bruce's climbing experience extended from the Safed Koh to Sikhim. He was with Conway in his notable expedition to the Karakorum, and with Mummery and Collie in the first attempt on Nanga Parbat. The snows of Khagan and Kulu were his happy hunting grounds. In 1907, the jubilee year of the Alpine Club, he nearly arranged the first exploration of Mount Everest; but at the last moment the plan was vetoed in London by John Morley, who feared Russian suspicion. Again in 1910 he got leave from the late Maharaja to explore Everest from the Nepalese side; but at the last moment this had to be given up for fear of arousing religious hostility.

By profession a soldier, Bruce was an acknowledged master in the difficult technique of fighting on the North-West Frontier. His influence with his own Gurkhas was remarkable, and his greatest contribution to mountaineering came through his wide knowledge of the tribes of the Himalaya. He was the first to use trained Gurkhas for serious mountain work. He started the Baltis of Kashmir and the Bhotias of Garhwal on the upward path, a lead which Kellas ably followed. But his great discovery was the value of the Sherpa, a Tibetan tribe long settled in Nepal. These, with their purer Tibetan cousins, have been the mainstay of every Himalayan expedition of recent years. The cause of his success was his sympathy with and knowledge of the languages and habits of these very varied peoples.

In 1923 Bruce was elected president of the Alpine Club. In 1915 he was awarded the Gill Memorial Prize and in 1925 the Founder's Medal of the Royal Geographical Society. But it was the adventure, not scientific interests, which absorbed him during his climbing holidays and longer expeditions. Of the latter, the Everest expedition of 1922 stands out. He made an ideal leader. Yet it is as a companion, the perfect one, that I most remember him, especially with Arnold Mumm and myself in Garhwal in 1907. He was the most invariably considerate, and pleasant, and uncomplaining companion it is possible to imagine. Not even the injured knee which deprived him of climbing Trisul with his devoted Subadar Kharbir Burathoki drew one word of disappointment or complaint from him. Bruce's name became a household word: but only his friends knew his real worth.

T. G. LONGSTAFF.

Prof. Archibald Young

PROF. ARCHIBALD YOUNG, who died in Glasgow on July 24 at the age of sixty-five years, had held the regius professorship of surgery in the University of Glasgow since 1924, when he succeeded Sir William Macewen. He had come under the influence of his predecessor, and this partly accounted for his leaning towards the surgery of the nervous system, to which he had regularly contributed since his service in the South African War. Moreover, this choice of speciality was natural in one whose clinical inclinations were coloured by the minutest examinations of clinical cases.

Prof. Young was at his best in dealing with

conditions in which careful attention to the smallest details was essential for diagnosis and treatment, and to this characteristic may be attributed his success in dealing with fractures, with lesions of peripheral nerves, and with affections of the sympathetic nervous system. For many years his health was indifferent, and his work was carried on often in discomfort and not infrequently in pain; and it is a sad reflection that his last major contribution to surgical literature was a translation of Prof. Leriche's monograph on pain.

A man of the highest integrity and professional ideals, and of uncompromising opinions, Prof. Young instilled into all his students his example of steadfast devotion to duty. J. R. LEARMONTH.

WE regret to announce the following deaths:

Dr. W. C. Mansfield, geologist of the U.S. Geological Survey, on July 24, aged sixty-five years.

Dr. A. H. Trow, formerly principal of the University College of South Wales and Monmouthshire, professor of botany in the College during 1905–18, on August 26.

NEWS AND VIEWS

Science and the National Ideal

THE world stands on the brink of the abyss. Before these words appear in print, it may have taken the plunge; and ten million men will already have entered on the initial phase of a struggle, of which none can foresee the end, except it be in disaster. The efforts of those, who during the last twenty years have striven to reconstruct a civilization shaken to its foundations by the war of 1914–18, have been frustrated by the incompatibility of their aims with the exclusive methods of national regeneration. In all the antagonisms of recent years, the voice of science, except where throttled by the political partisan, has been steadfast in support of freedom of thought and toleration—to those of this way of thinking, essentials of social and intellectual advance, but now threatened root and branch by the aggressions of a totalitarian nationalism.

SIR ARTHUR KEITH (*Sunday Times*, August 27), while admitting the close kinship of exclusive nationalism with the tribalism of the barbaric Dark Ages, sees in its spirit the mechanism of progressive development, and contrasts it with a cosmopolitanism which is lacking in force and colour. But in this contrast is he not guilty of a false antithesis, to which he is led by a too crude and outmoded interpretation of the Darwinian's force of natural selection? In the history of civilization, the struggle for existence has been resolved from one of brute force into a struggle for survival among ideas. Too true that often advancement has come about, and the world being what it is, must still at times come about by the aid of the driving force of the national idea. But more and more the struggle loses the character of national rivalry and becomes one in which we move, slowly it may be, towards a world order, which is not merely an undifferentiated cosmopolitan universalism, but an order to which each group, be it people, nation, or empire, by the development of its traditional culture to its highest power, may contribute something towards the common good and advancement of mankind as a whole. This is the faith and the ideal of a nationalism to which science must cling fast at all costs.

Education to Meet the Challenge to Democracy

SOME two thousand representatives of parents and teachers in the United States recently met at Cincinnati to discuss "The Purposes of Education in American Democracy" under the four heads: self-realization, human relationships, economic efficiency and civic responsibility. The proceedings culminated with a remarkable address by the president of the University of Wisconsin. American education, he said, entrusted as it has been to local inspiration, leadership and control, with emphasis on individual rights and individual liberty and but little sense of national responsibility, has for generations taught values which no longer conduce to a proper understanding of a world infested everywhere by a highly organized and efficient system of vilification and ridicule of the whole theory and method of democracy. The dictators are cultivating a common interest and a new goal; telling the masses that to save one's life one must lose it in devotion to a common social ideal. How can this be countered in a society split into groups which are at war with each other on political, social and economic fronts? Only by engendering an overriding devotion to what it wholeheartedly believes to be a worthier common social ideal. "Only a dynamic democracy can cope with a fact-facing fascism." The need is urgent. Only a conscious educational programme can produce the requisite sense of common purpose and common sacrifice, active, steady and constant. It "calls first of all for an understanding of democracy as a way of life and a nourishing of the underlying values upon which society depends for its existence. . . . Education must face this issue or lose its liberty and its opportunity". The address is reported in the July issue of *School Life*, the official organ of the Office of Education.