

NEWS AND VIEWS

Augustin Pyramus de Candolle, For.Mem.R.S.

On September 9 occurs the centenary of the death of the famous Swiss botanist Augustin Pyramus de Candolle, the contemporary of de Saussure and Prévost and the father of Alphonse de Candolle (1806-93). Born at Geneva, February 4, 1778, he was the son of a magistrate of the republic of Geneva and received a good education. His taste for botany was stimulated by attending the lectures of Prof. J. Vaucher (1763-1841), a founder of the Geneva Natural History Society, and while still in his 'teens de Candolle went to Paris, residing at the house of Dolomieu and becoming acquainted with such as Vauquelin, Fourcroy, Cuvier, Lamarek and Desfontaines. In 1798 owing to the decline, through the political upheaval, of the family fortunes, he took up the study of medicine, but botany still remained his chief study, and in 1804 he began to lecture in the place of Cuvier at the Collège de France. In the summer of 1806 he began a series of official botanical journeys through France and Italy, and in 1810 was appointed to the chair of botany at Montpellier with charge of the old botanical gardens.

In 1816 after the Restoration, de Candolle returned to his native land and was made professor of natural history at Geneva, a post from which he retired in 1834 through ill-health, when he was succeeded by his son. A man of the highest character, he was honoured alike by his fellow citizens and by foreign societies. His writings, which began with a memoir on lichens, were very numerous. His great work "Regni Vegetabilis Systema Naturale" was begun in 1818 but the too extensive scale of his work led to the commencement of his "Prodromus Systematis Naturalis Regni Vegetabilis", which was continued after his death by his son and other botanists. It is related that while at Montpellier, after the fall of Napoleon, he was instrumental in saving the Emperor's mother and sister Pauline from the danger of a mob by hiding them in the botanical garden. "Like all truly great men", it has been said, "de Candolle was modest; and the consciousness of his own worth is shown by the lenity with which he judged others, and in the heartiness with which he applauded their services."

Augusto Murri (1841-1932)

PROF. AUGUSTO MURRI, one of the most celebrated Italian physicians of recent times, was born at Fermo on September 8, 1841. He studied medicine at Camerino and Florence, where he qualified in 1864. After receiving post-graduate instruction in Paris, Berlin and Vienna, he returned to Italy, and after a period of private practice became assistant to Baccelli in the medical clinic at Bologna in 1871. Five years later he succeeded Baccelli as professor of medicine, and in spite of many tempting invitations from other Italian universities he remained at Bologna until the retiring age of seventy-five in 1916. His principal publications were devoted to the regulation of temperature, the theory of fever, the Cheyne-Stokes

phenomenon, hæmoglobinuria from cold, tumours of the cerebellum, clinical lectures, medico-legal reports, organotherapy and glandular insufficiency. In 1912 he was the recipient of a *Festschrift*. Selections from his works were published by Gnudi and Vedrani in 1919. He died at the advanced age of ninety-one, and on the day of his burial the city of Bologna founded an Augusto Murri prize in medicine.

Contra-rotating Airscrews

MESSRS. ROTOL AIRSCREWS, LTD., have now completed the development, to the production stage, of a constant speed contra-rotating airscrew, the principle of which was mentioned in *NATURE* of May 17, 1941, p. 602. This model consists of two three-bladed airscrews mounted on the same centre line, normally the engine hub, rotating in opposite directions. The aerodynamic efficiency of this device is not appreciable at flight speeds of less than three hundred miles per hour, but above this it is worth while, and at five hundred miles per hour it gives an increase of about 7 per cent. One particular example weighs 497 lb., compared with 450 lb., for the normal airscrew. Metal or wooden blades of any detachable type can be used equally well. The de Havilland Aircraft Co., Ltd., and the Fairey Aviation Co., Ltd., have also announced the production of contra-rotating airscrews.

The development of this device is the logical answer to the peculiar conditions arising in war machines, in that the increasing powers given by the newer aero-engines are not used to equip larger aircraft, but rather to improve the performance of those of the present-day dimensions. It is not possible to obtain more blade area by increasing the diameter of the single propeller because of ground or water clearance, and also because the blade tip speed, being too high, would make that part increasingly inefficient. Reducing the rotational speed to counteract this would give more slip and make the rest of the blade less efficient, and would call for a considerable gearing down, as the higher-powered engine is usually of high speed itself. Obtaining extra area by increasing the number of blades is not practicable as the thrust of each blade is spoiled by the interference of the preceding blade. There are also other advantages in the flying operation of fighting aircraft which were discussed in the previous note in *NATURE*.

Architects and Post-War Reconstruction

THE Reconstruction Committee set up by the Royal Institute of British Architects to consider and formulate the policy of the Institute and allied societies in post-war reconstruction and planning in its widest aspects has organized its work in three sections. A small group has been appointed to carry out work involving analysis of the position of the architectural profession in relation to physical reconstruction, and also on practical considerations in connexion with