

comet, discovered in 1770 by Lexell, which was distant only 1.40 million miles from the earth's surface. Some recently discovered minor planets have come fairly close to the earth; Amor, discovered in 1932, came within ten million miles, and 1932 HA within six million; but all records, cometary or planetary, have been broken by the minor planet 1936 CA discovered by Delporte at Uccle on February 12 of this year. This tiny object passed within 1.38 million miles of the earth on February 7. It has proved extremely difficult to determine the elements of this minor planet's orbit, and in particular, the period is hard to ascertain, so that it is difficult to predict the next approach. Since the object passes close to several major planets, large perturbations in its orbit may be expected. It is not impossible (though the possibility is remote) that the object may ultimately collide with the earth; there is a wide margin of safety at present. The view has been expressed that this object may belong to the same group as the great meteorites of Siberia and Arizona. On the other hand, far from colliding with a major planet, the object may eventually be thrown into a very long orbit with a very long period, or even ejected from the planetary system altogether. Should a collision occur, the damage will be very severe over an area having a diameter of a hundred miles or so, judging by the Siberian meteorite.

#### Snuff-Taking

At a meeting of the Society for the Study of Inebriety and Drug Addiction held on April 21, Dr. J. D. Rolleston read a paper on snuff-taking, which he said has increased enormously within the last five years as the result of letters to *The Times* by Sir Buckston Browne advocating the use of snuff as a protection against colds. On its first introduction into Europe in the middle of the sixteenth century by Jean Nicot, the French ambassador at Lisbon, snuff was used for the treatment of headaches and colds in the head. It soon, however, passed from being a drug to the rank of a luxury, and snuff-taking became general throughout Spain, Italy and France during the early part of the seventeenth century. Snuff-taking was introduced into Great Britain at the time of the Restoration by the courtiers and officers of Charles II in France, and its popularity increased considerably after the Great Plague. Henceforward until about the middle of the nineteenth century, the snuff box played an important part in the social life of the time, and medical and lay writers were equally extravagant in their praise or denunciation of the new habit. The most serious complication of snuff-taking, to which numerous references are to be found in the medical works of the last century, was the occurrence of plumbism due to the accidental adulteration of the snuff by lead in the packing. Numerous other adulterants which were not only detrimental to the revenue but also injurious to health were described by an Analytical Sanitary Commission in 1853. The Commission, however, was of opinion that the constitutional effects of snuff-taking were much less than in the

case of smoking and chewing tobacco, the effects in most cases being mainly local. In conclusion, Dr. Rolleston said that there is no recent information as to how far snuff-taking might become an addiction, but that most probably it should be ranked with other forms of consumption of tobacco, voluntary or enforced cessation of the habit causing considerable discomfort in some cases and little or none in others.

#### William Weston and Early American Engineering

At meetings of the Newcomen Society held almost simultaneously in London and New York on April 22, a paper by Prof. R. S. Kirby of Yale University was read entitled "William Weston and his Contribution to Early American Engineering". Weston was an Englishman, possibly born in Oxford in 1753, who before he was forty years of age had gained a reputation as a civil engineer sufficiently high for him to be engaged to go to the United States as engineer to the Schuylkill and Susquehanna Navigation Co., of Pennsylvania, which proposed to connect the Susquehanna by canal with the Schuylkill, and canalise the Schuylkill from Reading to Philadelphia. He sailed from Falmouth on November 23, 1792, and arrived at Philadelphia early in January 1793. The researches of Prof. Kirby have brought to light much information about Weston's connexion with the above schemes and with the Philadelphia and Lancaster Turnpike, the Middlesex canal connecting the Merrimack with Boston, the Potomac River Locks, the Western Inland Lock Navigation, the Schuylkill River Bridge and lastly the New York City water supply. Weston returned to England probably in 1799 or 1800. The only English work of his of which there is certain knowledge is the bridge over the Trent at Gainsborough, built in 1787-91; but strangely enough, practically nothing is at present known of his early career or of the activities of his later years. He inspired confidence in those with whom he came into contact in America and, says Prof. Kirby, he had a considerable influence on American engineering.

#### Exploration by Aeroplane

AN aerial survey over that part of Papua recently explored by Mr. Jack Hides, an assistant resident magistrate (see *NATURE*, Aug. 17, p. 251, Aug. 24, p. 290, 1935), by clearing up obscure points in the previous record, once more has illustrated the advantages of this aid to exploration in difficult country. Its assistance in giving speed and enlarging the range of vision was strikingly and conclusively demonstrated a few years ago by the aerial reconnaissance made by Dr. S. P. Morley of the Carnegie Institution, Washington, D.C., over the forest country of Central America, when in the course of a few hours flying, a large number of previously unknown ruins and archaeological sites were located in forest areas of Yucatan and Honduras, which it would have been possible to reach only after weeks or even months of travel, if at all, by the ordinary means of transport. In Papua, the country covered by Mr. Hides in eight months was traversed in flights lasting