method with some of those of the celloidin technique.

From ordinary series of paraffine sections the parffine is removed in xylol, the slides being transferred with great care to 100 per cent. alcohol and then to 1 per cent. parlodion from which they are removed slowly one by one and placed in 80 per cent. alcohol, an old method for securing sections to the slide especially for preventing embryonic membranes from floating about. After staining by any method and dehydrating, the slides are removed singly from 100 per cent. alcohol, placed in a horizontal position, and the sections *quickly* and *evenly* flooded with 2 per cent. parlodion. About 10 to 14 drops, from an ordinary 2 c.c. pipette, placed in two rows and allowed to stand one to two minutes uncovered were found to form a film of very uniform thickness and of sufficient firmness to be hardened without wrinkling when slipped into 80 to 90 per cent. alcohol. The proper degree of drying is indicated by a minute rippling of the surface of the celloidin. The slide is again dehydrated, care being taken not to use alcohol strong enough to dissolve the celloidin; and then cleared in a mixture of 40 per cent. beechwood creosote in xylol, followed by plain xylol. Creosote alone clears quite as well but does not flow as readily as the mixture which, moreover, clears from 95 per cent. alcohol. Such slides may be thoroughly drained in the air for several minutes before covering in the ordinary way with balsam and a cover glass.

It should be noted that the parlodion must be applied *evenly* so that the balsam will dry without the formation of large air bubbles. The latter can be entirely avoided. Furthermore, thinner films suitable for use with oil immersion objectives can be obtained by using a solution of parlodion somewhat more dilute and less in quantity.

By this method sections of the most delicate structures are imbedded in and under a perfectly transparent, unstained layer of celloidin so tough and resistant that sufficient pressure may be applied to the cover-glass to crush it without the least injury to the tissue. Slides so treated can not be distinguished from ordinary slides.

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QUOTATIONS

THE BRITISH ASSOCIATION

THE Edinburgh meeting of the British Association for the Advancement of Science came to a successful end yesterday. It was the largest in numbers for many years; and although the deficit on the accounts of last year made it impossible to devote money from current funds to research, there is a better prospect for the immediate future. Thirteen sections sat concurrently during the greater part of the week. It can not be pretended that all the proceedings conformed with the normal definition of science. Humor in school children, episcopal opinions on citizenship, the relative merits of Latin and Esperanto, and the history of Old Edinburgh are worthy occupations of the human mind, but lie somewhat uneasily with sterner subjects. The general committee showed a marked reluctance even to consider the advantages of a stricter definition of the scope of the association, and the adherents of sections more loosely attached to experimental science very naturally opposed proposals which they feared might lead to their extinction. On the other hand, the policy of the Council in arranging intersectional discussions on topics of wide interest was warmly approved in theory. In practise it led to some of the largest audiences in the history of the association. It was possible to give in our columns only slight indications of the general purport of the discussions on the structure of molecules, the age of the earth, and instinctive behavior; but our special correspondent laid stress on the wide interest taken by the members of the association in these deeper problems.

Sir Edward Thorpe, the president, was unfortunately prevented by illness from all but a formal attendance on the last two days of the meeting. But his opening address, read for him by the principal of the university,

dealt with the central point of contemporary scientific interest. Critical phases occur in the evolution of knowledge of such a kind that they seem to be revolutions in thought. The new vision of the atom as an ordered system, a macrocosm of energy in microcosmic space, is one of the greatest of these stages in the history of man's conquest of Nature. Doubtless, as the president explained, the discovery was reached along many converging paths of theory and of experiment. It was even predicted, fifty years ago in a presidential address, also at an Edinburgh meeting of the association, when Kelvin summed up the program of the past and suggested the lines along which future research must move. Sir James Dewar, at a dinner given by the Royal Society of Edinburgh last Tuesday, recalled even earlier predictions. But its attainment has led to results almost overwhelming in their importance. It has reconciled physics and chemistry in a higher unity. It has given a clock by which the age of the earth may be told. It has allowed astronomers to explain the pulsations of the distant stars. It has opened up prospects of a new and inexhaustible source of power for the practical uses of mankind. The Edinburgh meeting of the British Association will long be remembered as that at which the new atomic age was made known to those outside the inner ring of science.—The London *Times*.

SCIENTIFIC BOOKS

KEEN'S SURGERY

The first six volumes of Keen's "Surgery" recorded the progress of surgery down to 1913. In the preface to the additional volumes Dr. Keen states that the general purpose is to make available the lessons of the war for the surgery of peace and to set down every worth while surgical achievement since the war; and both of these objects have been accomplished in a masterful way. The two volumes consist of a series of monographs written by authors of international reputation and comprise 1800 pages with 996 illustrations, 29 of them in color.

The editor counts it "a crowning privilege of his long life to be associated with such a distinguished company of authors." The distinguished authors also doubtless count it as an inspiring privilege to have been associated in the production of the work with such an enthusiastic student and able teacher.

In the two new volumes the names of many former contributors are absent and new names are added. There has also been some shifting of subject matter. The editor has added many footnotes of great help to the reader, and has made many cross references to statements of the different authors of the various chapters. Typographical errors are few and there is evidence of careful editing and proofreading.

Much space in the two volumes is devoted to the organization of the medical departments of the Army and Navy. The chapters by Colonel Ashford of the U. S. Army, by Captain Bell of the U. S. Navy and by Lieut. Commander Stephens of the British Navy occupy 183 pages, including many photographs, drawings, diagrams and lists of furniture and equipments. Much information is given of value in civil practise, such as the treatment of shock, burns and suffocation by fumes and smoke.

The chapter on Gas Gangrene by Sir Cuthbert Wallace is complete and most beautifully illustrated. Some qualification seems necessary for the statement it contains that "suture of the main artery is recommended as a prophylactic measure against massive gangrene."

The chapter by Cannon on Traumatic Shock, although occupying only 19 pages, is exceedingly valuable, being not only authoritative and scientific, but practical as well.

Sir William Thorburn in his contribution on Injuries of the Spine and Spinal Cord emphasizes the treatment of the patient as a primary principle. The importance of the management of the bladder for example is stressed by the remark that "the bladder holds the key to life or death for the patient." In his chapter on Injuries to the Peripheral Nerves the author fails to mention the work