

the large crevasses in the Glacier du Dôme. The traverse is of great interest and difficult enough to tempt any well-trained party.

In the same season the following other ascents were completed: Aig. Trélatête (trav. four summits); Dôme de Miage (trav. five summits); Aig. de Bionnassay (trav. in the record time of three and one-half hours from the Rif. Durier to the Col de Bionnassay, including halts); Aig. Noire de Peuterey (in one day from Courmayeur); Aig. de Talèfre; Aig. de la Varappe; Aig. du Chardonnet (trav. northeast arête to Col Adams Reilly); in the Ampezzo Dolomites: Torre Grande (via Miriam).

M. M. STRUMIA.



REPORT OF THE FOURTH INTERNATIONAL CONGRESS OF ALPINISM
IN CORTINA D'AMPEZZO (ITALY) SEPTEMBER 9TH TO
SEPTEMBER 14TH, 1933

The Congress was opened on September 9th by S. E. Angelo Manaresi, President of the Italian Alpine Club and of the Fourth International Congress of Alpinism. Immediately afterwards there was a general assembly of the representatives of the Alpine Clubs and Societies when the various members of the four sections were elected. The four sections were I Alpinism, II Alpine Tourism, III Science related to Mountains, and IV Art related to Mountains. Your representative was made secretary of the section on Science related to Mountains (III). At the same time the constitution of the U. I. A. A. (L'Union Internationale des Associations D'Alpinisme) was drafted. The constitution and by-laws of the U. I. A. A. were discussed on several occasions and finally approved at the last meeting.

The representatives spoke as a rule in the language of their own countries. It was, however, decided that all of the report would be published in the four official languages, that is, French, English, Italian and German. Your representative at the last meeting of the U. I. A. A. accepted for the American Alpine Club the affiliated membership (see article 4 of the by-laws).

The various sections then met during the following days and various papers were read and discussed. Several of these are of great practical importance. Your representative feels that a point of great importance which has not been given enough emphasis is the organization of a uniform system for emergency squads to help Alpinists in case of accident, and we propose herewith that such point be made part of the program of the next International Congress, which will take place in the late summer of 1934 in Switzerland.

On the afternoon of September 14th your representative presented three movie reels of climbing in the Canadian Rockies and

for many of the members it was the first view of this important region.

The most pressing question, that is the opening of frontiers, was forcibly kept out of discussion, or at least it was not discussed nearly as thoroughly as it should have been.

The Congress closed with a dinner offered by the Italian Alpine Club to the representatives of the various Alpine Clubs.

M. M. STRUMIA.



A NOTE ON ANCIENT CRAMPONS

Simler, in his *De Alpibus Commentarius* (1574), says "people are accustomed to tie iron shoes, like those of horses, and furnished with three sharp prongs, securely to their feet, so that they may get firm foothold on the ice; others furnish the thongs, by which the sandals are tied under the foot, in the same way, with a very sharp iron spike, and employ other means in order to resist the slipperiness of the ice and to improve their footing."

Climbing-irons are represented pictorially for the first time in *Theuerdank* (1517), descriptive of the adventures of Maximilian I, being of sandal form attached by two straps across the foot. The prongs, four in number, are arranged as if on the corners of an oblong, two under the anterior arch of the foot and two beneath the heel. In some of the pictures no binding is shown, as if the spikes were attached directly to the shoe. In the chamois-hunting plate of *Weisskunig*, the four-pronged sandal is attached by a single strap over the arch of the foot.

Several unusual climbing-irons are shown in the *Historia de gentibus Septentrionalibus* (1555) by Olaus Magnus, the plate being produced in Grand-Carteret's *La Montagne à travers Les Ages* (1902, i, 98).

A primitive four-pronged crampon, in one piece, with a ring on each side for attachment, is shown by Scheuchzer in his *Itinera Alpina* (1708), while a "Sandal with Cramp Irons," the prongs restricted to the heel, but with elaborate lateral supporting bars and binding, occurs in Saussure's *Voyages* (1779-96), and is reprinted in *An Atlas to Ebel's Traveller's Guide* as late as 1819. In Pieth and Hager's *Placidus a Spescha* (1913), there is a reproduction of a small three-pronged heel-iron dating from the early part of the nineteenth century.

Until recently, archæologists have believed that the ancestral type of these irons was represented by certain objects associated with burials of the Hallstatt culture (700-400 B. C.) in Salzburg and Carinthia, it being assumed that foot-irons were used by Celtic miners.

One of these, from E. von Sacken's *Das Grabfeld von Hallstatt* (1868), is reproduced in A. Steinitzer's translation of Sim-