

THE ALPINE INDICATOR.

The Alpine indicator represented in our engraving is found in Switzerland upon a hill near Aarau. This apparatus is well known to the bathers who have passed a season at Schinznach-les-Bains, for it is a classical objective of excursions. The utility of this indicator is to give the tourist the name of the mountains that he sees in the distance, and the chain of which, uninterrupted upon nearly half the horizon, forms a grand spectacle. The system consists of a semicircular table whose rounded part is turned toward the panorama, and upon which, pivoting around an axis placed in the center of the rectilinear side, there is a rule forming as it were a radius of the circumference in which the table is comprised. Upon this rule, above the pivot, there is a back sight and at the other end, near the circumference, a front sight. Upon the table, and in their respective directions, are inscribed the principal names of the mountains that are seen in the distance.

The spectator who wishes to consult the indicator must place himself on the rectilinear side of the table and face the panorama. With the rule pivoting around the axis, he will aim at the summit whose name he desires to know, as he would do with a gun, in using the breech and muzzle sights. This done, he will find a name upon the table at the side of the sight. It is that of the mountain aimed at.

The reader will readily understand how it has been possible for the maker to establish this indicator. He has oriented the table by means of a compass, and, placing upon it a map of the environs in the same orientation (the place where the indicator is found upon the map coinciding with the sight upon the table), has, by taking aim at the mountains of the horizon, been able to find them upon the map, and, reciprocally, by aiming according to the map, to find the mountain at the horizon. The result of these operations he has noted upon the table. In order to find objects nearer than the horizon, a map of the surroundings is transferred to the table. As the horizon in the present case is at 24 miles, the space between the back sight and the circumference of the table is divided by equally spaced concentric semicircles, having the back sight as their center, and the spacing of which represents a distance of three miles in a bee line. The object, say a belfry or castle, is sighted, and this is found again upon the map upon seeking it at its approximate distance along the rule. We have seen several of these tables in Switzerland, at Lucerne and Zurich, but they had no sights. The contours of the mountains had been simply drawn and the names placed beneath the corresponding points. This is much less practical.

We have seen the apparatus with sights, as at Aarau, installed upon the tower of the cathedral of Lausanne. It had been established for allowing the night watchman to recognize in darkness a village or farm in which a fire had just broken out, so that aid might be sent thereto.

Since the villages have been connected by telephone with the principal city, the indicator has no longer been used.

We have never seen these indicators in France. Perhaps some exist, but there are certainly many places where they might be put. In the environs of Paris, among others, one of these tables would not be out of place, nor would it be upon the terrace of Saint Germain or upon that of Bellevue. The Alps, of course, would not be seen, but it is not the Alps only that is worthy of interest. We believe that it would be interesting for some one who has the advantage of having a view over a wide horizon at home to establish one of these tables.

A compass, one or two official maps, a flat rule, a sheet of bristol board, and a plank are all the materials necessary.—La Nature.

A DIAMOND weighing not less than 971¼ carats, and said to be the largest in the world, has been found in the Jagersfontein mines, Cape Colony, by Inspector Edward Jorgansen. It was taken, well guarded, to the Cape of Good Hope and put aboard a warship for London and deposited in the Bank of England.

The Brighton Aerial Cableway.

A new cable railway across the valley known as "The Devil's Dyke," five miles north west of Brighton, England, was opened on October 13, 1894. Telfer lines are now quite largely used for industrial purposes but a passenger line of this kind is a novelty. The steel wire cable is attached to tall steel columns. The length between stations is 1,100 feet and the span between the columns is 650 feet. The lowest point in



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the valley below the cable is 230 feet. Suspended from the cable are steel "anchors" supporting, 2 feet apart, two parallel wire ropes, on which the pulleys of the passenger car run. The car is drawn across by a 4½ horse power Crossley oil engine. Each car holds eight persons, and two and one-half minutes are occupied in the trip.

FIRE EATERS.

The fire eaters of whom we propose to speak, and who have been exhibiting in the hall of the Olympia,



FIRE EATERS AT THE OLYMPIA THEATER, PARIS.

at Paris, excel in their line anything of the kind that has been seen up to the present. They not only swallow flames, but handle fire and cause it to flash from their fingers.

These fire eaters are two young Americans who have cultivated physics and electricity considerably. When they perform their experiments they are clad in a tight-fitting costume of a red color which represents that of the devils of fairy scenes. The stage upon which they

appear remains but dimly lighted during the entire time of their presence thereon. At the back of it there is a piece of furniture that resembles an office desk seen from the rear, but no detail of this object is distinguishable. The devils go behind it and seem to make some preparation with their hands there, and then they come to the front of the stage and cause very thin but brilliant flames to dart from their fingers. Bringing these flames near their mouths, they seem to swallow them, and then extinguish them between their teeth.

When the two devils touch each other's hands, a crackling is heard and long flames dart forth for a few seconds from the tips of their fingers, which they continuously move.

In a subsequent experiment, without putting anything in their mouths, they blow with energy and a brilliant flame makes its exit from between their lips. They shoot forth a jet of flame for a considerable length of time, which certainly exceeds half a minute.

While these singular phenomena are occurring, the spectators absolutely smell no odor. It is probable that the combustion is due to a very volatile essence, but we are unable either to state precisely the nature of it or to give an exact explanation of the experiments performed. The red devils keep their secret, and when they are questioned remain mute.

Our readers, however, may inform themselves as to many points of these curious phenomena by reading two articles entitled "Incombustible Men" that Mr. Guyot Daubes contributed to this journal in 1886. The author speaks of jugglers who lick red hot iron rods and of eaters of lighted tow, and describes the experiments performed in 1881 by a person named Kortig, who had prepared an essence that was so volatile that he poured some of it into his hand and lighted it with out burning himself. Mr. Kortig held a seance at a soiree given at the Conservatoire des Arts et Metiers by Mr. Herve Mangon, then director.

We were invited to this soiree and saw the operator light the liquid that he had poured into the brim of his felt hat or into the folds of a lady's handkerchief without the objects serving as a support to the liquid being in any wise damaged.

For the chemist, there are here some interesting experiments to take up and study.—La Nature.

Exhibition of the National Sculpture Society.

The second annual exhibition of the National Sculpture Society will be held, beginning Tuesday, May 7, and continuing until May 23, in the galleries of the American Fine Art Society's building, No. 215 West 57th Street, New York. The exhibition will comprise several novel features and promises to be unusually interesting and profitable. An important feature will be a retrospective exhibition of sculpture, to which all are invited to contribute. All work of sculpture, whether exhibited before or not, will be eligible, subject to the decision of a jury of inspection.

A novel feature will be an exhibition of landscape gardening, arranged with flowers and plants after the designs of Nathan F. Barret, landscape engineer, and Thomas Hastings, architect. It is intended to show something of the possibilities of combining sculpture with flowers and plants in gardening and in interior decoration. The society will also hold in connection with the exhibition a competition for a new design for the United States silver dollar, and the plaster models presented in competition will be on view.

Two prizes of \$300 and \$200 are offered for the two best designs, and if any design of sufficient merit be presented, the society will urge that it be adopted by the national government. Further information may be

had by application to the society.

ONE of the most remarkable sights to be seen in Australia is a burning mountain 1,820 feet in height. The mountain is supposed to be underlaid with an inexhaustible coal seam, which in some way became ignited. It was burning long before the advent of white men to that part of the country.