

THE ALPINE DISTRESS SIGNAL.

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THE original suggestion for an Alpine distress signal came from Mr. C. T. Dent ('A.J.' xvii. 152); and the code ultimately adopted by the Continental alpine clubs in 1898 ('A.J.' xix. 88 and 292), which has been in use ever since, is nearly identical with that recommended by a sub-committee of the Alpine Club appointed on November 10, 1892. The report appeared as an appendix to 'A.J.' xvii., and was discussed at a meeting of the club on April 3, 1894, when Mr. Willink read a paper on the subject ('A.J.' xvii. 151-2 and appendix). In August of the same year Mr. C. T. Dent gave an address on the suggested code to a general meeting of the D. and Ö.A.V. at Munich ('A.J.' xvii. 202 and 379).

Thus the signal has had a trial of over a quarter of a century; and probably it will not be disputed that experience has shown it to be of little practical use. One of the reasons is, no doubt, that climbers are rarely in situations where they can make it seen or heard. It may be contended that in such situations any light or sound will be carefully watched and treated as a distress signal if intended as such. On the other hand, if a system of signalling is worth maintaining at all, it should be correct in principle.

An attempt will be made here to explain the defects of the present system. As the same code is employed for all visual and sound signals, it will be sufficient to quote the precise wording of the instructions for night signals, which is as follows:

'By night: Show a light (lantern, fire, etc.) six times in a minute. Allow an interval of one minute, then recommence.'

Realizing, no doubt, that the efficiency of any system of signalling depends, for one thing, upon the sender carrying out the instructions in the exact manner which the person reading expects, Mr. Willink inserted the following paragraph, italicized, in his paper:

'In all signals regularity of interval is of the utmost importance, both as regards dots and as regards the minute intervals between the series.'

The present definition of the signal is, however, ambiguous, because, apparently, those who framed it overlooked the fact that seven flashes or dots are required to demarcate six con-

secutive intervals ; with the result that should anybody attempt to send the signal with accurate timing of intervals, doubt will immediately arise in his mind as to how the instructions are to be interpreted. The phrase 'six times a minute,' if interpreted strictly, would seem to indicate intervals of 12 seconds each ; whereas it may well be inferred that intervals of 10 seconds are really intended ; 10 second intervals and a total period of 2 minutes being the natural arrangement to make with the object of facilitating correct timing.

The most convenient form of signal of the present character might be defined as follows :

'Seven flashes at intervals of 10 seconds, followed by an interval of 60 seconds. To be repeated until an answer is received.'

Similarly the answer would be four flashes at intervals of 20 seconds.

There are, however, defects in the present system of a more fundamental nature ; and these defects seem to afford good reasons why the general character of the existing code should be altered. They are as follows :

1. Certain interpretation of the existing distress signal necessitates continuous watching for at least a period and a half ; about 3 minutes.

2. The distress signal is necessarily made to persons not on the look-out for any signal at all. Such persons may not happen to see a number of consecutive flashes sufficient to put them on their guard ; or may not realize that such consecutive flashes as they do pick up correspond in timing with the distress signal. The signal should convey its import immediately, when first seen.

3. To make the signal properly necessitates the use of a watch, and one may not be available.

4. The making of the signal, whether with or without a watch, will necessitate considerable concentration of thought.

5. Convenience, and more especially the probability of the signal being seen at night, could be increased if the periods during which the light must be screened were short.

6. The person reading the signal is expected to be able to look in two different ways at once : at the sender, and at his watch.

One of the most essential matters is that any Alpine signal must be absolutely simple. With this in view, I put forward the tentative suggestion that—

The *distress signal* should consist simply of *groups of three flashes*, waves of a flag or its substitute, or sounds ;

the groups being separated by *intervals* just sufficient to enable them to be definitely distinguishable.

The *answering signal* should consist simply of groups of *two flashes*, waves or sounds separated in the same way.

Intervals, whether between individual flashes, etc., or between groups, would not otherwise be defined; with the exception that it might be wise to lay down that whatever intervals are adopted in any particular instance should be adhered to throughout the progress of the signalling; and that, at night, if signalling is only carried out intermittently, a steady light should preferably be shown during the periods of cessation. To signal for 15 or 20 seconds every few minutes, and show a steady light at other times, is nearly as likely to be successful as to carry on signalling continuously.

It is also suggested that some standard type of light weight sound signalling apparatus should be recommended and placed on the market. The most efficient note would have to be determined experimentally. The circumstances when the signal is most likely to be of use is when two parties are within earshot.

Again, written instructions and printed notices in huts are less likely than practical demonstration to disseminate knowledge of the signal, or cause people to be able to use it efficiently. Guides, porters and hut guardians should be taught to demonstrate; and be obliged to do so, on request, at all reasonable times. Few people read printed notices, and fewer still are likely to learn the signal properly from them. Utility of the signal must be dependent upon ability to recognize it being universal.

In support of what has been explained in regard to the defects of the present system, it may be interesting to note that whereas the distinguishing signals emitted by lighthouses and light-vessels have hitherto, either in part or exclusively, been based upon time intervals, the latest practice, especially in the case of acoustic fog signals, is to use distinguishing Morse groups for purposes of identification. The trend of the recommendations made here is in the same direction. The change is, however, more necessary in the present case, as the person signalled to is not expecting to receive a signal at all. On the other hand to define any revised distress signal in terms of the Morse code would be impracticable, as in most cases the ability to use that code would be absent.