In many cases, the azimuth bearing alone is not considered sufficient and the lookout man is required to determine the approximate distance to the fire, and report by both bearing and distance. To do this by message code it is best to adopt a numeral code running up to the greatest distance at which a lookout man would be likely to report a fire, and, by combining this numeral code with the bearing code, such a sentence as the following may be sent :—

OG   DS = " I have sighted a fire with azimuth bearing, from my station, of 24 degrees, 30 minutes; distant, approximately 19 miles."

If the location of fires is being determined by a station that is itself communicating by visual signal, radio, or any other method to which a code is adaptable, it will be necessary to provide a set of signals that will indicate the precise location of the fire within the area being protected. If the region is covered by the Dominion public land survey, a separate signal for each section or even quarter-section on the entire area may be provided, although for the latter on an area of one million acres at least 6,500 signals would be required. The message might read as follows:—

B T T = " A fire has been located on the southwest quarter of section 12, township 36, range 14, west of the fifth meridian."

In a region that is not sectionized, the most convenient scheme is to divide it on the map into squares, arbitrarily, and number each square, assigning a separate signal to each for reporting a fire therein. Squares may be one mile to a side or smaller or larger as the conditions warrant.

For convenience in future reference each lookout man should number his fires and refer to them by number only. Various reports as to the progress of the fire as seen from the lookout station are usually desired, and each of these will require a set of signals long enough to cover as many fires as any one lookout man would be likely to report during a season.

Necessity for another class of signals arises from the fact that in many regions permits to settlers to start fires are required, and it is important that lookout men be informed whenever such permits are issued. To do this by code, each settler in the entire region should be designated by a signal. Such a message would then be of the following type:—

F L T = " A permit has been issued to John Smith to burn slash on his homestead."