descend the shaft until the kibble or cages have been run up and down the shaft, and the ropes, chains, cappings, and cages carefully examined by him. If any weakness or defect is found in anything belonging to the pit-top, or in the engine or machinery, he must not permit any person to descend or ascend until it is made secure. The banksman shall also attend to the proper signals.

114. No person shall enter the cage until authorized to do so by the onsetter or banksman, as the case may be, or leave the cage until it shall have stopped at the landing-place, and persons while waiting at the top or bottom of the shaft or any entrance into the shaft, or while in the cage, shall behave in an orderly manner, and shall obey the directions of the banksman or onsetter, as the case may be, and shall not impede the banksman or onsetter in the discharge of his duties. The banksman or onsetter, as the case may be, shall not, when persons are being raised or lowered, signal the cage away until the gates or other rigid fences with which the cage is provided are in position, and no person other than an official or person authorized in writing by the manager to give signals shall when riding in the cage interfere with the gates or fences. No person other than a banksman or onsetter shall give signals while men are being raised or lowered.

115. The onsetter at any entrance into a shaft which is

provided with a fence not worked by the cage or cages shall not begin to remove the fence until either the cage is stopped at the entrance, or it has reached such a position in the shaft that by the time the fence is removed the cage will be opposite the entrance, and shall close the fence immediately he has signalled the cage away, and shall not permit any other person to remove the fence while he is on duty.

person to remove the fence while he is on duty.

116. The banksman, when he is informed of danger in the shaft, shall not allow any person to go down, unless for the purpose of repairing the shaft. He shall not allow any intoxicated person to descend. He shall himself give the signals, and let no other than appointed persons land the trucks or put them into the cages. He shall listen at the pit-top when any person is in the shaft. He shall remain at the pit-top until all the workmen are raised.

117. The banksman or onsetter shall not let a youth under sixteen years of age go up or down the shaft unless accom-

sixteen years of age go up or down the shaft unless accom-panied by a man, and shall not permit more than the number of persons stated on the board at the pit-top and bottom to descend or ascend at one time. The banksman and onsetter shall not allow a person to go down or up against a loaded cage, and shall not allow any person to take with him rails, props, sprags, tools, trucks, or other bulky materials, or to get on or off the cage until it has settled upon the props or reached the pit-bottom. The banksman or onsetter shall send all tools down or up the shaft in a truck, and propserable between the proper of the pully materials shall be rails, brattice-boards, and other bulky materials shall be tied securely to the cage or rope by the banksman or onsetter when being sent down or up the shaft. If a rope is working in the shaft for underground planes, no person shall ride in the cage whilst such rope is running unless it be cased. 118. The head banksman shall see that the top of every

shaft is securely fenced.

119. The onsetter shall be in the mine at the appointed time in the morning. He shall be at his station and give signals and perform his other duties under these rules, and he shall remain there to see all workmen safely into the cage and up the shaft at the close of the shift.

120. The onsetter shall report to the underviewer any person that gives a signal or disobeys his direction. He shall give the prescribed signals. He shall only allow authorized persons to put trucks into or take them out of the cages,

and he shall see that no materials project outside the cage.

121. The onsetter shall see that the water-sump is never uncovered when any person is ascending or descending the

122. No person shall attempt to go on or across the uncovered space of the shaft-bottom except for the purpose of working in the shaft-bottom, and no person shall be allowed

to work in such space unless the cages are stopped.

123. The banksman shall keep the cages and pit-top clear.

124. The banksman and onsetter shall not, unless by special permission, allow any person to ride on the cage without the cover being closed.

## WINDING AND HAULING APPLIANCES.

125. No mode or type of capping shall be used which fails to withstand a strain-

(a.) In the case of a winding-rope, of at least seven times the weight of the maximum load carried at any time by the capel:
(b.) In the case of a hauling-rope, of at least 60 per cent.

of the breaking strain of the rope.

126. A competent person appointed by the manager shall, whenever a winding-rope is capped or recapped, superintend the work, and see that it is properly carried out.

127. In no case shall the capel of a round winding-rope be attached to the rope by the use of rivets passing through

the rope.

128. In those forms of capping in which the wires at the end of the rope are bent back on the rope itself to form a cone, or wedges formed by the lapping of wedges of a soft metal, or wedges formed by the lapping of soft wire, shall be placed between the rope and that portion which is bent back. This regulation shall not apply to hauling-ropes if materials only are hauled or if the gradient is less than 45°.

129. If white metal is used in the capping of ropes, the composition of the white metal shall be such that its meltingpoint is under 750 degrees Fahrenheit.

130. Where white metal is used in the capping of ropes. the untwisted ropes shall be thoroughly cleaned, and before the white metal is poured into the socket the latter shall be heated or warmed.

131. All ropes shall be securely attached to the drum, and when the cage is at the pit-bottom there must not be less than two rounds of rope on the drum.

132. (1.) In shafts in which men are raised or lowered no

spliced rope shall be used.

(2.) On inclined planes on which men are carried no spliced rope shall be used without the previous permission of the Inspector.

133. The use of a screw stop-valve as the controlling valve of any winding-engine is prohibited.

134. (1.) Only wire ropes shall be used for haulage purposes on jigs, except on the face-section where chains may be used. Anchor-chains shall be used on all face-jigs.

(2.) A back-stay or trailer shall be attached to each ascending tub or set of tubs on every inclined haulage road

where mechanical haulage, other than endless rope or chain,

(3.) Suitable appliances approved of by the Inspector shall be provided to prevent tubs in which persons are being conveyed from becoming disconnected or running away.

## SIGNALLING (EXCEPT IN SINKING PITS)

## Winding.

135. The manager shall, in the case of a mine where there are entrances into the workings from the shaft at different levels, prescribe the signals to be used to indicate the level to which the cage is to be sent, and in respect of movements of the cage between one level and another level, and shall

fix any other signals that may be required.

136. A notice shall be posted in the engine-house, and at the pit-head, and at each entrance into the workings from the shaft, containing the signals fixed by the manager in pur-

suance of the preceding regulation.

137. In connection with every winding-engine there shall be provided an appliance which shall automatically indicate in a visible manner to the winding-engine man (in addition to the ordinary signal) the nature of the signal until the signal is complied with.

138. No person other than the banksman or onsetter shall give any signal unless he is an official of the mine or is authorized in writing by the manager to give signals.

139. The following signals shall be used at all times in con-

ection with winding in shafts:-(1.) For winding persons:—

(a.) When a person is about to descend, the banksman shall signal to the onsetter and to the winding-engine man Before the person enters the cage the onsetter shall signal to the banksman and to the winding-engine man When the cage at the bottom is clear and ready to ascend, the onsetter shall signal to the banksman and winding-engine man.. When the person is in the cage and ready to descend, the banksman shall signal to the winding-engine man (b.) When a person is about to ascend, the on-setter shall signal to the banksman and to the winding-engine man Before the person enters the cage the banksman shall signal to the onsetter ... When the person is in the cage and ready to ascend, the onsetter shall signal to the banksman and to the winding-engine man.. When the banksman has received the signal "1" from the onsetter, he shall signal to the winding-engine man . . (2.) For winding otherwise than with persons:-To raise up .. .. To stop when in motion .. To lower down 2 .. To raise steadily To lower steadily