Buildings and Installations.

THE DERRICK AND ADJOINING BUILDINGS AND INSTALLATIONS.

217. The derricks and buildings connected therewith, also the machinery and tools for drilling, shall be of good material and strongly and securely erected. No other building but that covering the drill plant and stationary drilling-engine shall be attached to or in proximity to a derrick.

218. Timber shall not be used in the construction of any derrick, except for the framework. This regulation shall not apply to the buildings existing at the time these regulations come into operation.

219. The derrick shall be securely guyed by strong wire rope, or otherwise adequately supported.

220. Galleries shall be constructed within the derrick, having a railing 3 ft. high and a foot-board. Ladders leading to such galleries shall be of adequate strength, strongly secured and maintained in good

221. There shall be provided in each derrick opposite the highest gallery a window which opens to the outside, and in front of this window, on the outside of the derrick, there shall be constructed and maintained a platform having a railing 4 ft. high, to which suitable ladders shall be connected to provide the workmen engaged in the top of the derrick with adequate means of escape in cases of emergency.

222. The buildings over the drilling plant and machinery shall be of adequate dimensions to allow

safe access to all working-places.

223. Every derrick and building over the drilling plant and machinery shall be provided with at least one door and one window. In the wall of the derrick, behind the drillman, there shall be constructed a selfclosing door and also a safe passage past the mudpits. Except during working-hours this door shall be securely locked.

224. The floors of the derrick and engine-house shall be sanded, to prevent workmen from slipping.

225. If drilling-rods are placed on a table or rack it shall be provided with an arrangement for preventing them from falling therefrom.

226. Operations at gushing or extremely gaseous wells shall not be permitted unless adequate provision is made for the immediate closing of the well by a blowout preventer or capping, which will also permit the removal of the oil and gases into storagetanks.

227. All operations to recover lost drilling-tools from any well where unusual force is being used in turning the rods or tubes shall be carried out under the direct supervision of the manager. The use of more than one lever fastened to the rods or tubes, and the use of keys, is prohibited during operations for such recovery. In all heavy and dangerous work with the pulley-blocks, and also during the so-called racing of the engine, the presence in or near the derrick of persons other than the driller and the workman assigned to the work by the driller is prohibited. The manager shall give great attention to the work when pulley-blocks or screw-jacks are being used. tion with water is prohibited.

When working with screw-jacks, precautions must be taken to prevent the parts from flying about in the event of the breakage of the rods.

228. The walking-beam shall be so balanced that it may be lowered easily by hand after the drilling-rods have been unscrewed. Under the walking-beam on the well side of the drill there shall be fixed a post to protect the workmen in the event of the breakage of the pitman.

229. The brake-bands of the rig shall be of suitable dimensions, and shall be manufactured in such a way that with ordinary care sparks will not be produced. For this purpose the brake-bands shall be lined with vulcanized fibre or other material which will not emit sparks.

230. Within two years of these regulations coming into operation all Canadian slippers-out shall be replaced by an arrangement which may be operated safely by a hand-wheel and worm gear. Tools shall not be raised with a Canadian slipper-out during the movement of the walking-beam. The steel wheel shall be provided with a double dog.

231. No engine other than a stationary engine shall be used when drilling by steam-power.

BOILER-HOUSES AND BOILERS.

232. Every boiler-house shall be so situated that the prevailing wind will divert inflammable gas therefrom. Every boiler-house shall be securely roofed with non-inflammable and gastight material. This regulation shall not apply to any boiler-houses existing at the time when these regulations become operative.

233. Boiler-houses shall be of adequate dimensions to permit safe and convenient access to all parts of the boiler.

234. Between the firebox and the nearest end of the boiler-house there shall be a clear space of at least 6 ft. The floor of the boiler-house shall not be constructed of inflammable material.

235. The roof around the boiler-chimney shall be constructed of sheet iron for a distance of 2 ft. from such chimney. Between the boiler-chimney and the roof of the boiler-house there shall be a sheet-iron pipe, which shall project above the roof. The chimneys of portable boilers shall be at least 26 ft. high, and of sufficient diameter to allow the escape of smoke. All chimneys shall be provided with approved covers and spark-arresters, which shall be frequently cleaned from soot.

236. The water-gauge shall be protected. steam-gauge shall have a maximum mark. The doors of the firebox, ashpan, and the fireways shall be close-fitting.

237. In the event of a dangerous outburst of oil or gas the stoker shall first shut the door of the boilerhouse, then shut off the supply of oil or gas to the firebox, and close the doors of the firebox and of the ashbox, and finally extinguish the ordinary light, if one be used. Withdrawal of the fire and its extinc-