

voiced in such an utterance as "The Company's rich, they can stand it." Therefore, in every shop the care of the belting therein should be entrusted to a man possessing a thorough practical knowledge of the subject, who should be held primarily responsible for the good working condition of the material under his charge, and the avoidance of any unnecessary loss in connection therewith. He should be equipped with all the necessary tools for effecting repairs, etc. It has been claimed that the expenditure per year for repairs on belting, including labor and material, should not exceed 20 per cent. of the original cost of the belting, whereas these items have been known in many cases to exceed 100 per cent. A shop register should be kept by the belt man, the pages of which should give in detail the following particulars. When and where each belt was applied, its length, width and thickness, date and nature of repairs made thereon; each belt to be identified by a certain number in the register.

MISCELLANEOUS.

In applying belts for use on flanged or stepped pulleys, see that they are at least half an inch narrower than the face of the pulleys. Nothing stretches a belt unevenly more quickly than rubbing against the flange or side of a pulley. Belts should not be fastened with rivets, especially where the pulleys are small, as the rivets cause slippage which means a loss of belt efficiency. To test the quality of a leather belt place a cutting of it about one-sixty-fourth of an inch thick in a strong solution of vinegar; if the leather is thoroughly tanned, it will remain for months immersed without alteration, simply changing to a little darker color. If of a poor quality, the fibres will swell and very soon it will be transformed into a gelatinous mass.

Do not allow a belt to hang on a revolving shaft. Long belts transmit more power than short ones. Narrow belts should have a length of 15 feet between pulleys, larger ones 20 feet to 25 feet. The angle of the belt with the floor should not exceed 45 degrees.

The motion of driving should run with, not against, the laps of the belt. Belts adhere better to wooden pulleys than iron ones.

Belts should be kept free from grease and accumulation of dust, especially from contact with lubricating oils, protected and kept pliable by an occasional application of cod oil and beef tallow, equal parts, applied hot.

To find the change required in length of belt when one of the pulleys is changed for one of different diameter, three times half the difference between the diameters of the pulleys and the result will be the length to cut out or put in.