especially when it has been exposed to the direct rays of
the sun during the process of seasoning, is apt to have
more or less cracks, called season-cracks, which must not
be confounded with heart-cracks and shakes. They can
be distinguished from each other from the fact that the
cracks due to seasoning are sharp, while those due to
shakes are splintery—the splinters, in many cases, being
easily torn off. Well-seasoned timber wears much
longer than green timber; but since bridge-plank is
seldom, if ever, kept in stock, and since public works
rarely have their needs anticipated, lumber is almost al-
ways procured fresh from the mills. The durability of
timber would be very much enhanced if kept soaking in
water for a few months after it is cut into plank,
after which seasoning proceeds very rapidly, the water
having acted as a solvent in ridding the pores, to a great
extent, of sap and nitrogenous matter, the decaying
elements of wood. Sap-wood—that is, the wood newest
made and next the bark—is not desirable, as it will wear
away faster and decay sooner than the heart-wood, but
practically it is impossible to obtain timber of any size
and in large quantities entirely free from it, unless at a
very great increase of cost. Sap-wood may be recog-
nized as being lighter in color, softer, and of more open
fibre than the heart-wood. Timber is regarded as mer-
chantable when it has not more than three sappy cor-
ners, although some inspectors do not permit of more
than two; but as bridge-plank usually wear out before
they rot out, a latitude can with propriety be observed