Fine cracks occurred in some of the bricks only under nearly the highest load, but total destruction of the pier took place under the ultimate load, but did not shatter so badly as in the case of those laid in lime mortar.

## Pier No. 16:

DescriptionKingston Road, 2nd class, laid in cement mortan
Size of pier, $9'' + 9'' \dots $ area, 81 square inches
Length, 8 courses
Age 2½ months
Ultimate load
" strength per square inch852 "
" " foot

This pier held together even under the ultimate load, the failure occurring through actual crushing of some of the upper bricks. After pier was removed from the machine, only small portions of it could be forced away from the mass.

## Pier No 17:

Description Carleton Clinker, laid in cement mortar.
Size of pier, $8\frac{1}{2} \times 8\frac{1}{2} \dots$ area, 72.25 square inches.
Length, 8 courses
Weight pounds.
Age
Ultimate load 174,000 pounds
" strength per square inch2408 "
" " foot

Fine cracks appeared toward the end of test; these cracks were not continuous down the length of pier, nor did they increase much in width under the highest load.

## Pier No. 18:

While working on this pier the friction clutch of the machine gave way, and the tests were discontinued for the present.