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### DAM CONSTRUCTION AND FAILURES DURING THE LAST THIRTY YEARS.

(By C. BAILLARGE, M. Can. Soc. C.E.)

The last accident recorded in the New York "Engineering Record," for October, 1902, page 343, under the heading "A Reservoir Break at Camden, N. J.," bears the writer out in the conclusions of a paper of his, published in the "Canadian Engineer," reproduced by the "Record," and, again, by some of the European engineering publications, on "The Instructiveness of Failure."

The Camden reservoir embankment was, it is stated, made of sand loam, measuring 70 feet at base, 10 feet across the top, with a height of 20 feet.

The inner face was lined with some 18 to 24 inches of stiff clay, covered with one layer of common brick, set on edge, and, apparently, at one time grouted, although when failure occurred nothing remained in the joints but mud. It had been built some thirty odd years ago.

Accidents thus lead us, while looking for the cause, to discover deterioration which might otherwise have remained unnoticed for years to come, or until, as occurred at the Bouzey dam in France, by the rotting away of its binding matter, the carrying away bodily