This will more clearly appear, by considering the probable wants of the canal, *exclusive of lockage*: to arrive at a proximate valuation of which we must recur to experience elsewhere.

With this view I have compiled the following table, from a report of Frederick C. Mills, Esq, chief engineer of the Gennessee valley canal, made to the canal commissioners of New York, under date of January 23d, 1840, wherein he gives a general summary of those practical examinations which have induced the ablest engineers in that quarter, to adopt as the measure of the loss of water upon canals, from every source of consumption (except lockage,) the rate of 100 cubic feet per mile and per minute.

TABLE:

Compiled from the Report of F. C. Mills, Esq., Chief Engineer of the Gennessee Valley Canal, New York, 1840.

Consumption of Water upon finished Canals in New York—caused by evaporation, filtration, and the leakage and waste at the mechanical structures, as ascertained by the following Civil Engineers:

AUTHORITIES.	Canal experimented upon.	Length of the part tested in miles.	Total consumption exclusive of lockage in cub. feet, per mile and per minute.
Judge Roberts,	Erie,	61	90 .16
ditto,	do.	11	100
ditto,	do.	69½	116 .54
ditto,	do.	141½	103 .18
Judge Bates,	do.	79	101 .26
ditto,	do.	20	105
W. H Talcott,	Chenango,	22	107
Three different Engineers,	2 Canals,	404	723 .14

Average of all the experiments 103 7-10.

Mr. Mills further states that,

"Mr. Talcott's experiments show the loss on 22 miles of the Chenango canal, to be 107 cubic feet, per mile, per minute; of which 66 cubic feet was for evaporation and filtration, and 41 cubic feet for leakage and waste at the mechanical structures: and by using those results as the basis of the calculations on the Gennessee Valley canal, he makes the loss for the same causes 106 cubic feet: this small difference is owing to there being a less number of mechanical structures on the latter, than on the former canal."