function of the Adirondack forests is found in the influence
which they exert upon the streams heading among the hills
of the Adirondack plateau, which distribute the heavy rain-
fall of this region. As reservoirs of moisture, these forests
are essential to the continued prosperity of the State.
Their influence is felt far beyond the limits of the State,
and their destruction must be followed by widespread com-
mercial disaster. The future of the rivers which flow from
the Adirondack plateau may be judged by their past.
Great changes have been noticed in these streams since the
area of the Adirondack forests has been materially reduced.
All the testimony which the commissioners have been able
to collect upon this subject, indicates that the summer flow
of the Adirondack rivers has been decreasing within the
memory of men now living, from thirty to fifty per cent.

These effects have a simple explanation. Any land area
covered by forest has its rate of evaporation reduced by the
shade thus afforded to the extent of 38 per cent., as com-
pared with cleared lands; and the reduced evaporation
under such circumstances so far exceeds the loss of water
by transpiration, that there is an actual accumulation of
water in the soil of forest-covered areas. Moreover, the
organic matter accumulated in the growth of a forest, and
the abundance of moss induced by the moist shade thus
afforded, serves as a retaining medium to hold the excess of
water and allow it to gradually flow away into the streams.
It follows from this, that streams rising in a dense forest
will be distinguished by the uniformity of their volume and
rate of flow; drought and flood are rare; springs abound.
A removal of the forest destroys all the conditions upon
which these phenomena depend. The stream experiences
strong fluctuations in volume and rate of flow; springs dis-
appear, and drought becomes frequent; while every rainfall
is immediately precipitated down the steep hillsides, rap-
idly merging into a flood, which carries disaster in all
directions.