of a wood-working concern which requires a steady annual supply. Since seed years for white pine occur not oftener than once in three years, this means that any cutting method based on the periodic fall of seed must make provision for securing reproduction after the operations of the off years. The established logging and milling methods almost necessitate the clear-cutting of a considerable area in one place a minimum of not less than 5 to 10

The method of cutting is a combination of preliminary thinning with clear-cutting. Each year an area large enough to yield the bulk of the annual cut is cleared, and ordinarily thin-nings are made on adjacent areas in amounts sufficient to yield the balance of the total cut. The object of the thinnings is primarily to stimulate reproduction of pine so that it will be available when and where cuttings are made in non-seed years. Each year, however, the bulk of the operation is a clear-cutting which keeps the cost of the job within reasonable limits.

Before the final clear-cutting is begun all the advance growth, hardwood and underbrush, both small and large, is cut close to the ground. Usually this can be done with a bush-scythe and at a rate of an acre or an acreand-a-half per man per day. The purpose of this is to eliminate misshapen and overdeveloped reproduction and to insure the uniform starting of straight, vigorous, seedling sprouts. Cost records show that the work is much more than paid for by a saving in the cutting and hauling of logs due to the much greater ease of handling and loading. When the logging starts the slash is burned in piles much of it in broken time while the job is in progress. The cost of slash burning has varied from fifteen to fifty cents per thousand.

A COMMERCIAL IDEAL

"The ideal forest situation provides annual growth equal to the annual requirements.

"Forest Conservation and forestation will procure this ideal condition in time and the movement is under way."

The above is clipped from a full page advertisement of the International Paper Company of New York, the largest newsprint concern in the world. While the International Company has used the argument to point an arrow at Quebec's embargo on export of unmanufactured wood from the company's lands to their American mills, nevertheless the principle of systematic forest management and permanent timber crops is today thoroughly recognized by all progressive pulp and paper companies.

Water Over Sands

By Douglas Malloch, the Lumberman Poet.

Time slips away like water over sands, So swiftly—silently, we scarcely know-We ply our oar with fond and futile hands.

But with the current we must onward

The changing scent, strange faces on the

A sudden ripple and a little strife; And then the scene, the face, the strife, no more-

And this is life.

How far we come in such a little while! Like water over sands time slips away; How short the distance from a baby's

To age's wrinkles and a brow of gray. If yesterday, today, are not the same, Beyond this bayou is another bend;

And we shall find, and, finding, fondly

Perhaps a friend.

So hail him!—do not pass him—give a hail!

Behold each lily, ev'ry perfect thing. To speed too swiftly down is but to fail, There are such songs to hear, such songs to sing.

Yea, there are fruits and flowers, grass and tree:

Live while you may, while life is in your hands;

Time slips away like waters to the sea Run over sands.