THE EWART LINK BELT.

We give our readers an admirable illustration of Ewart Detachable Link Belt as *applied* to *live* rollers and *continuous* conveyors in a sawmill, operating with great ease and economy by automatic labor saving machinery from the saw log to the manufactured lumber, &c., and to the removal of the sawdust and other refuse. The cut and the references by figure and letter to the various details give so clear an idea of the mode of application that no long description is required. *One great advantage* which *this link* belting possesses is its adaptability for use in either wet or hot situations, where other belting would soon be destroyed. Even in other cases there is greater strength and less wear and tear, and there is less loss of power by friction. Its mechanical fitness for application to sawmill requirements is also obvious. It is made of refined malleable iron and is carefully tested to two-and-a-half times its tabulated working strain.

The sole manufacturers of this belting in the Dominion, are the Waterous Engine Works Company, of Brantford, Ontario, who will be happy to afford any further information on the subject to those who are contemplating the substitution of it can belts into their mills. They are already used in many leading establishments.

PLANTING AN OAK GROVE.

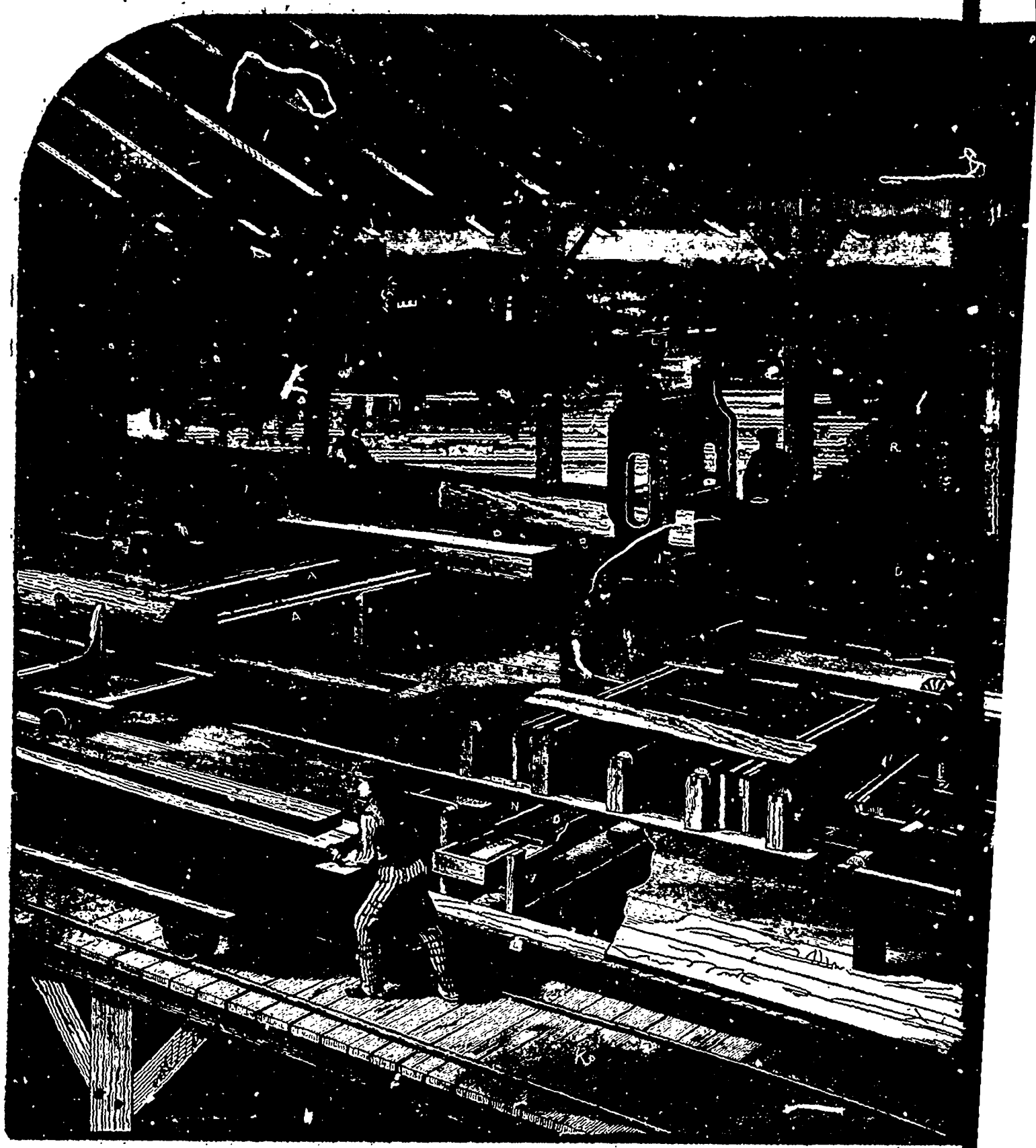
It is not such a difficult matter to raise an oak grove if one has the patience to wait for it. Oak trees will grow as readily from acorns as apple trees will from seed if only the precautions are observed. An immense fortune awaits the man who will set out 160 acres to the white oak, and carefully attend to it for a series of years; for this kind of timber when small, is in constant demand by coopers, by railroads for ties when larger, and by wagon and agricultural implement manufacturers when grown. An acre of ground contains 43,650 feet of land. Planted to acorns in rows three feet apart and one foot in the row and it would give 14,536 trees to the acre, or 3,325,760 trees to the quarter section. Supposing now this amount was divided by two, to cover losses, and it leaves the respectable sum of 1,162,880 trees on the 160 acres. When of a suitable size, two thirds of the trees, or 775,000 might be cut for hop poles at, say $6 per thousand, or over $46,000. The remainder, 387,000, if allowed to grow until they were large enough for railroad ties, would be worth $775,000 more, to say nothing of the balance for fire wood, which would be no inconsiderable sum. If a portion only of them were cut out and the balance allowed to grow into a forest of large trees, their value for timber would be a fortune to the happy possessor.

The above may seem visionary and probably to a large extent is but it is certain that if one has the patience to start the grove and will give it proper care, and can afford to bide his time for the trees to grow, that there is a fortune awaiting him. Some years ago we had a talk with a prominent railroad builder on this subject, and he declared it as his belief "that land could not be put to more profitable use than in growing a forest of oaks for railroad ties." Taking the poles, the fire wood and the ties together, it would not require a life time to wait for the beginning of an income. In the old world the planting of oak forests is a branch of governmental work. It has been found that the tree requires a deep and humid soil to come to its full development. If it be sandy with some clay mixed in, the better. The oak has a tap root which permeates deeply in the sub-soil, and if the latter be hard the tree languishes and never attains much size. The soil should be at least three feet deep, and the richer it is and the faster the tree grows, the tougher and more valuable the timber. Hence, cultivation is of value in its propagation not only for promoting growth, but also for increasing its toughness and elasticity.

Should any of our readers be seized with a desire to carry out the suggestions here made, here are a few points that may be of value. Gather the acorns in October, or at a time when they begin to fall of their own accord. Take them to a cool place to dry and rake over daily until the dampness is off. Whether it is better to plant in the fall or spring we cannot say, but either course is pursued. A little experimenting for a season would decide this. If kept over till spring, the following method is recommended by the foresters of France.

"Place in a dry spot in piles three feet high, cover a foot deep with dry leaves; over this a half a foot of dry moss, and over this a half a foot of long straw, capping the apex to keep out the water. Plant in the spring, and they will sprout without delay."

The young seedlings should not be disturbed the first year, as the tender rootlets are very sensitive, though of course the weeds must be kept down with the hoe. The second year they can be cultivated some, and the third year thoroughly so. In regard to the time required to grow the trees we have no data. The oak will grow much faster, however, than one might imagine, if it be properly cultivated. We have on our grounds, in Minneapolis, nearly 100 young white, black and burr oaks, the bulk of them being of the first named variety. No data has ever been made regarding their growth, but trees that were not more than two or three inches through nine years ago are now some of



THE EWART LINK-BELT FOR IMPROV

1.—Haul-up Works for hauling logs to circular saw.
2.—Continuous running rolls for conveying slabs.
3.—Dead rolls for receiving outside slabs
4.—Half rotary chains for moving slabs laterally to slab-cutting table.
5.—Slab-cutting table.
6.—Slab and refuse conveyer.
7.—Continuous running chains, for moving second or third-cut slabs laterally to the edger rolls.
8.—Edger Rolls.
9.—Lath length cutting table.
A.—Heavy chain trucks for moving the squared log to gang rolls.
B.—Gang rolls.
C.—Gang of saws.
D.—Live rolls for conveying the boards from the gang to the trimmer table.