musty. If any other kind of leaves or sand or dirt are found among it, it will injure it as a commercial commodity. No portion of the stalk or any berries should be left in it. The leaf is what is wanted, but, to facilitate the gathering, the little twigs should be cut off upon which the leaves grow, all of which will be marketable when cured according to the above directions. Stripping off the leaves is apt to kill the stalk, therefore, in order to insure a better crop the next season, it is best to cut down the old stalk, and the roots will spring up better than ever.

## PAPER FROM WOOD.

The idea of utilizing wood for the manufacture of paper was first suggested to Reaumer in 1719 from his noticing the fact that the fabric of wasps' nests was formed out of wood reduced to pulp. This industry has of late years acquired great importance, and is rapidly increasing, as the supply of rags on which paper-makers formerly depended for their stock is inadequate to the demand for the manufactured material. Were it not for this factor in paper-making, paper would now be one-half as much more, if not double, the price it is to-day.

The woods most suitable for pulp making are Spruce, Balsam, Poplar and Basswood, the two former being more refractory to reduce than the latter. Birch and Beech are also used, but not to nearly such an extent as the other woods mentioned. There are two processes by which wood fibre is reduced to pulp, the mechanical and the chemical, and for the description of these I am indebted to William Angus, Esq., of Montreal, who is largely interested in pulp manufacture.

The mechanical process consists in grinding the wood which is cut into pieces about twelve inches long by four inches square, and placed in small boxes on a machine where, by means of screws and hydraulic pressure, the wood is kept against the edge of a broad grindstone rapidly revolving. Water is supplied freely to facilitate the grinding and to wash away the pulp into receiving vessels, whence it is taken to be dried and if necessary bleached.

The same work is accomplished also by grinding with emery wheels. After the wood pulp leaves the grinding machine it is manipulated so as to get rid of the coarse fibres of wood or slivers that may be in it. After which it is run over what is called in the trade a "wet machine" into thick sheets, which are then bundled up and shipped to the papermakers.

Considerable wood pulp in sheets is dried on cylinders as it leaves the wet machine, when it is used as pulp-board for making paper-boxes and band-boxes without any other admixture.

The chemical process requires a large investment of capital and great skill and experience to make a good article, whilst the mechanical process only requires small outlay and but little experience, hence the large number of mills of the latter kind now in operation. The wood is cut into chips diagonally about three-eighths of an inch thick, thus preserving the fibre. These are placed in a boiler with strong caustic liquor, closed tightly 120 lbs. the stea forated which t liquor a soda asl mixes t cent. acc

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