

Horticultural.

HEELING-IN TREES IN THE FALL.—The *Gardener* gives the following suggestion about covering the roots of trees in winter: "We have no doubt that more trees are lost from imperfect heeling-in than from any other cause whatever. This every observing person who has seen the way in which the roots of trees are buried in masses with large interstices of air everywhere among the roots will attest to. Trees badly heeled-in should not remain so twenty-four hours before planting out. Clods of masses or earth are merely thrown on the top of the roots, and only shade them from the sun's rays. In a few days the roots will become dry, because they are not in contact with the moist earth. If the heeling-in is well performed every crack and crevice will be compactly filled with the pulverized earth, and the trees will keep a long time as well as in the nursery rows. If badly heeled-in during autumn and left till spring the trees are nearly, if not wholly, ruined by freezing and drying combined."

SLEEPING FLOWERS.—Almost all flowers sleep during the night. The marigold goes to bed with the sun and with him rises, weeping. Many plants are so sensitive that they close their leaves during the passage of a cloud. The dandelion opens at five or six in the morning and shuts at nine in the evening. The goat's beard wakes at three in the morning and shuts at five or six in the evening. The English daisy shuts up its blossoms in the evening, and opens its "day's eye" to meet the early beams of the morning sun.—The crocus, tulip, and many others close their blossoms at different hours toward the evening. The ivy-leaved lettuce opens at eight in the morning, and closes forever at four in the afternoon. The night-flowering cereus turns night into day; it begins to expand its magnificent sweet-scented blossoms in the twilight; it is full blown at midnight, and closes, never to open again, with the dawn of day. In a clover field not a leaf opens till after sunrise. Those plants which seem to be awake all night have been called the "bats and owls of the vegetable kingdom."

ARTIFICIAL CLOUDS TO PROTECT GRAPEs.—A congress of vine growers has been held last autumn in the south of France, whose members, before separating, tried a most interesting experiment. It was simply a plan to counteract the destructive effects of frost—which, at certain critical periods, is fatal to their crops—by the creation of clouds of smoke to hover over the grounds. Iron vessels, containing a preparation principally of tar, were disposed at intervals over the vineyards, and the material set on fire, thus producing thick clouds, which hovered over the land and spread for miles around.

DR. HALL makes the following sensible remarks: "It is unreasonable to expect ministers to be always at home to receive callers and always running about among their people; or to expect them to be constantly employed in these ways, and at the same time to bring into the pulpit things new and old in a state of elaborate preparation. Uninspired men require to read, write and think, if they are to teach continuously any body of people; and the more teaching and explanation the people require, or the more simple the topic is to be made, the more study is demanded for it. An absurd idea prevails among some unthinking persons that ministers who speak, and distinguished from those who read, do not need or make preparation."

If we disobey the dictates of conscience, even in the most trifling particular, or allow ourselves to do what we have some fears may not be quite right, we shall grow more and more sleepy, until the voice of conscience has no longer the power to shake us.

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