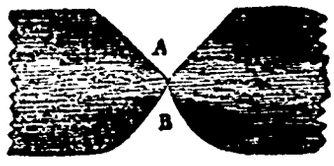
the other side, and it will surely fall as intended, unless the wind is contrary, or the tree leans. These circumstances must always be taken into account at the outset to prevent mistakes and avoid accident. The direction in which the chips fly, and the line they form as they lie on the ground, will indicate where the tree will fall. Care must be taken and judgment exercised in felling trees to prevent mishaps. Accidents occur through ignorance or carelessness, and there are few cases in which injury is done by the falling of branches, or the tree going in the wrong direction, that the chopper is not to blame. Many act very recklessly, especially when the tree gets lodged in an adjacent tree. In such a case great caution should be used, no risks run, and no hasty measure attempted. Better take a little more time than hazard life or limb.

When the tree is felled, it requires to be cut into suitable lengths for the log-heap, in which it is to be burnt out of the way. No particular rule can be given as to the length of the logs. It depends very much on the size of the tree. As far as possible the logs ought to be such as a yoke of oxen can draw, or, in the case of the very large ones, twist round to form the beginning of a heap. In cutting off a log there is a right and a wrong way of forming the kerf or chip. Both modes are shown in the subjoined cut:



A is a badly shaped kerf or chip. B is one of the proper shape. The rule, among good choppers, for the length of the outside kerf, usually is that it must not be less in length than the diameter of the log. Thus, if a log be two feet through, the kerf should be commenced two feet long. It is best to do this in the shape of a double chip, each half being about one foot in length. A chip of more than a foot long, will not fly readily. The outside chips will come off more readily, in the case of large logs, if the ends of the chip are cut off square. When this is done, every blow tells with redoubled effect.

Before closing these remarks about chopping, it may be as well to say something about the axe, and the mode of "hanging" it, as it is called. The annexed figure represents an axe ready for use:—A is

the poll, which is often made of steel; B is the edge; C the steel; D the outside corner; E the inside corner; F the eye through which the helve or handle passes, and into which it is wedged; G is the helve or handle; H is the hilt of the helve or handle. The dotted lines represent the angle of the axe and helve, and show how the axe should be hung. Axes are made of different sizes and weights, choppers are not agreed as to whether a light or heavy axe is the more effective. Perhaps it depends somewhat on the workman. A slow chopper can use to advantage a heavier axe than a man who is quick in his movements, while the latter will make up in the number of his blows for the lightness of the tool he works with. A good helve or handle is very necessary in order to pleasant and effective work. In many cases it so happens that the chopper must make his own helve. This is not an easy task. Many a good mechanic cannot make a helve fit to chop with. Our space will but admit of a suggestion or two in reference to this point. In the first place, the helve must be flat or rather oval, as a round helve will turn in the hand and is neither pleasant nor safe to work with. The shape will be better understood by the help of the following diagram, which will also be a guide in making the helve:—About two feet eight inches in length from *a* to *b* will suit most men. It is well, if it can be done, to take a good helve as a model, but if this cannot be done, a pattern can be made in a few minutes, out of a thin piece of board, as shown by the dotted lines. At *a* it should be about three inches wide, and at *b* about two and a half inches wide. At *c* about six inches from the end near *d*, make a mark for the most prominent point. At *D* make another mark about two-thirds of the distance from *a* to *b*. At *E* make another mark, six or seven inches from *b*. The shape should be marked out with a pencil, as near like the figure as possible, and then it should be cut out very carefully and exactly. Tough hickory is the best wood for a helve. Rive out a piece and dress it four square, as thick at the large end as the hilt, and wide enough to mark the shape with a pencil by the pattern. Then with such tools as may be at command, reduce it to proper

shape and dimensions. Drawing-knife, smoothing-plane, spoke-shave, rasp, and sand paper, are most venient, but sometimes all these are not within reach. In laying the pattern on the stick let the part at at *c E* be towards the *bark*, and the part at *D* towards the heart of the tree. Then if the helve springs no mischief will be done, but rather good, while if it springs sideways it will be worthless for chopping purposes. In hanging the axe, as it is termed, *i. e.*, putting the handle in, it is necessary to have the edge range exactly with the centre of the hilt, and also to have the hilt, the centre of the eye, and the centre of the blade, at right angles. Much depends upon the axe and axe-handle being "all right," but full particulars would swell to a long dissertation, and become tedious, especially to such of our readers as know "all about it."

Hints about March Work.

The brief hints given in our first issue for February, in reference to work for that month, hold good, many of them at least, for March also. The present month is a rather uncertain one in this climate. Usually winter loosens his hold very sensibly by the middle of the month, and yet he often gives us rather unpleasant reminders that his reign is by no means over. Preparation should now be made in good earnest for spring work. Tools should be in perfect order; vehicles well greased; ploughs ready to start; harrows in right trim, no teeth missing, and all sharp; harrows oiled, and if necessary repaired; cultivators, whipple-trees, ox-yokes, &c, fit for use. As this month is noted for high winds, secure everything liable to receive damage from this cause. Look after barn and stable doors, gates, loose fence boards, and the like. Working oxen and horses should be well cared for as the trying time of hard work approaches. If they can be moderately used, as well as properly looked after, they will become gradually prepared for the severe tasks before them. March is rather early for lambs in this country, especially from fine wool flocks; but it is desirable to get mutton lambs as early as possible, that they may attain a better size and be sooner ready for the butcher. Breeding ewes should be well housed, either in closed sheds or in the barn, with litter enough to keep the fleeces clean. It is possible to keep them too close; they are the better of some ventilation. Toward the end of this month usually, the banking up may be removed from cellar windows, when cabbage leaves and other decaying rubbish should be cleared out; sprouts rubbed off from growing potatoes, and the interior cellar walls whitewashed. Winter grain may be rolled if the ground be dry enough. This should especially be done on soil much heaved by frost. Breeding cows ought to have regular feeds of roots; raw potatoes, carrots, or even turnips will do. It is not often that ploughing can be done in this country during March. But on porous or well-drained land it is sometimes feasible. Our spring is so short that the earlier the plough starts the better. On sandy soils ploughing may begin so soon as the frost is out of the ground. But in the case of clayey or rich soils, the action of the sun is needed for a time before the ground can be stirred. It will not do to plough clayey land while it is wet. Clover seed should be sown early. It may be done best on a light snow some still morning. The seed and footsteps are then visible, helping the sower to do his work evenly, while the moisture of the melting snow hastens germination. This is the month for making maple sugar. Full directions how to do this will be found in No. 4 Vol. I of this journal. Cows that come in early, should be carefully attended to, and their calves kept warm, especially those intended to be reared. If exposed to cold, their growth will be seriously retarded. Poultry should be allowed to get picking at the first grass, chickweed, &c., that starts. Hens inclined to sit may have eggs put under them this month, but it must be in a warm place, and the early chicks must be looked after, or they will not live long. The orchard should be watched. If trees have been injured by mice or rabbits, treat them to a plaster of cow-dung and clayey loam, well beaten together, and fastened on with an old cloth. Stable manure may be scattered liberally over the roots of fruit trees. A sharp look-out should also be kept for insect depredators in the orchard.

"Candour" on Flax Culture.

To the Editor of The Canada Farmer:

Sir,—I notice in No. 3 of the present volume, that "Candour" takes me to task for giving my experience in flax culture.

By way of apology for meagreness of detail, I may say that I always aim at brevity, and do not wish to load your columns either with unnecessary details or exhibitions of wit. If "Candour" wants experience on a more extended scale, let him take, by chance, say twenty names from among the largest growers on his books, and I will assist him in getting certified details, a summary of which can be published in The Canada Farmer. Will he do this? I would like, for instance, to hear from Mr. S. Wallbridge, of Ameliasburgh, who, I understand, sowed several bushels of seed. Doubtless, my flax could have been pulled in a few hours had no weeds been present—and their absence would be a rare exception. I have *more* than *one* year's experience in flax culture, and will give full details of the crop of 1863, if "Candour" desires them. I shall dismiss his figures with a few words: other crops *did* realize from $20 to $25 per acre—fall wheat for instance; other crops did not average that, neither did flax; our own fall wheat realized $28 per acre after paying for seed—the straw and chaff paid abundantly for harvesting and threshing: hence the absurdity of comparing flax with wheat, in harvesting, still remains, and will continue to do so while cradling is more rapid than pulling. If parties have realized double or treble this amount from flax, it must have produced from four to six tons per acre. That the market for wheat is "universally an uncertain one" is an astounding fact and beyond my comprehension. I merely spoke of hay, because it is likewise sold by the ton. In comparing profits, it is necessary to deduct the cost of cultivation and harvesting in each case. This, "Candour" does not do. It is well enough that manufacturers should understand that farmers have interests of their own. They cannot afford to raise crops that do not pay; and flax at the same price as hay most assuredly will not. I wish simply to give my brother farmers the *truth*, and this can only be done by exhibiting every side of the question. If I have shown some of the difficulties in flax culture, others have not been lacking to show its advantages. On page 47 of the present volume, are some calculations which show that an acre, after *deducting the expenses of manufacturing*, will yield $70 worth of flax. The plan there detailed would enable farmers to grow flax to the benefit of themselves and the country at large.

Sidney, Feb. 17, 1865. E. M.