(No Model.) 2 Sheets—Sheet 1.

J. L. SEYMOUR.

PREPARATION OF KINDLING WOOD.

No. 345,928. Patented July 20, 1886.

Fig. 1.

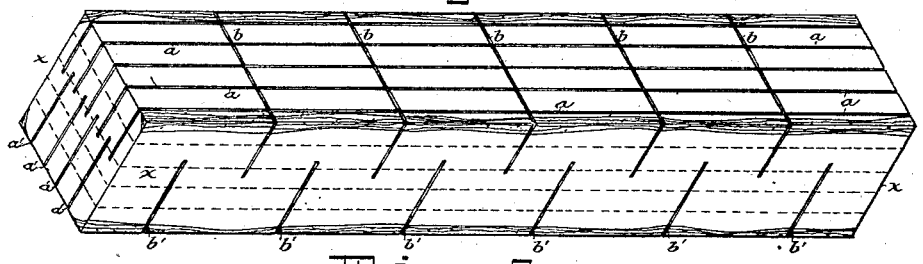


Fig. 2.

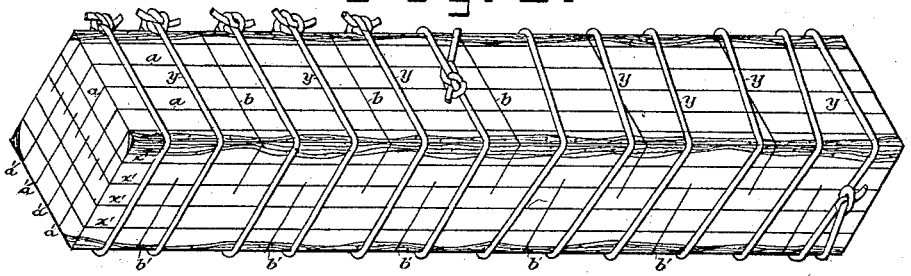


Fig. 3.

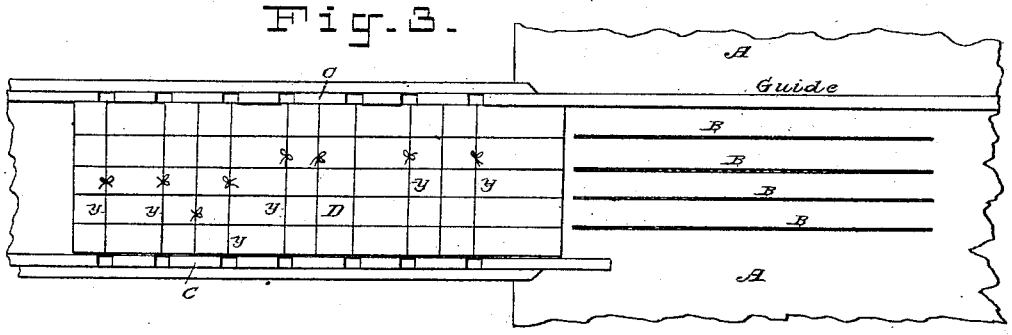
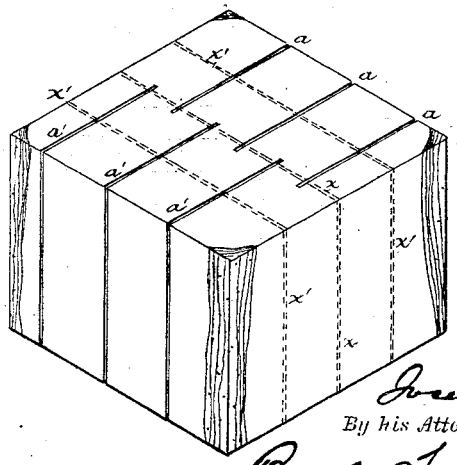


Fig. 4.



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(No Model.) 2 Sheets—Sheet 2.

J. L. SEYMOUR.

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Fig. 5.

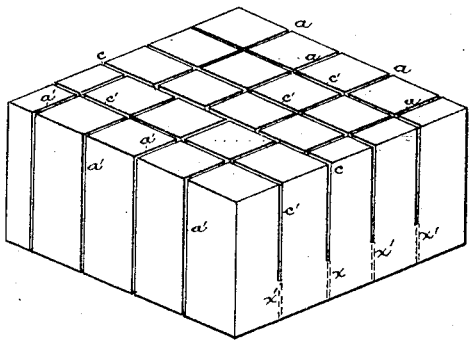


Fig. 6.

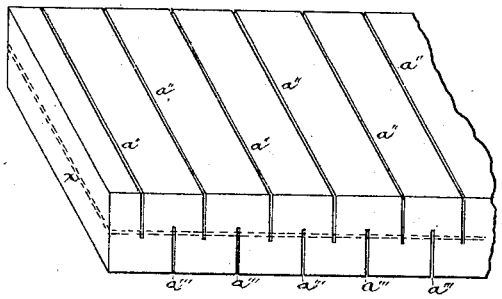


Fig. 8.

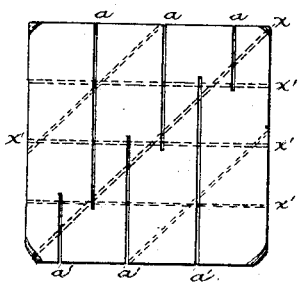
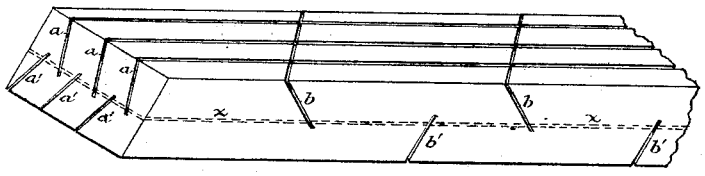


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOSEPH L. SEYMOUR, OF NEW YORK, N. Y.

PREPARATION OF KINDLING-WOOD.

SPECIFICATION forming part of Letters Patent No. 345,928, dated July 20, 1886.

Application filed November 19, 1885. Serial No. 183,223. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. SEYMOUR, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain Improvements in the Preparation of Kindling-Wood, of which the following is a specification.

My invention relates to a method of preparing kindling-wood, the object being to effect an important economy in the cost of handling, drying, transportation, &c.

Kindling-wood is usually made in the form of billets from a resinous pine wood, which is cut in the forests remote from the cities, where it is most in demand and where it is an article of necessity. When separated into small billets and loaded loosely, the cost of transportation of this wood is very considerable, and if shipped to the cities in the form of logs and green the cost of cutting and drying in the cities will greatly exceed the cost of the same work at the timber source.

My method of preparing the wood is designed to enable all the work on the wood, if desired, to be done at the timber source—*i. e.*, where the wood is cut, or in the neighborhood—and still to leave the log or piece which forms the billets intact or in shape to be handled as one piece. That is to say, I may slab and kerf a log and cross-cut it preliminarily according to my invention and yet leave it integral, so that it may be handled as one piece. This piece thus prepared is then dried in a kiln, by preference, the preliminary kerfing assisting in the drying process very materially, as will be well understood without explanation. The dried and kerfed log or piece of wood may now be passed over a saw or gang of saws to receive the secondary kerfing, which divides it into billets. The preliminary kerfing is such that the secondary kerfing, done by passing the log once over the saw or saws, reduces the log to billets and also leaves them overlapping in such a way that, as the log or piece leaves the saw or saws, it may be wrapped with cords, withes, or wire, either at intervals or spirally, so as to hold the billets all in place together. The log or piece, made up of loose billets, may thus be handled as a whole and packed closely for transportation.

The preliminary kerfing of the log may be done in various ways; but the leading characteristic of this kerfing is that the kerfs are so arranged that it is only necessary to pass the log thus preliminarily kerfed once over a single saw or a gang of saws in order to divide the entire log or piece up into kindling-billets. I ordinarily proceed in this way. I first slab the log, in order to square it. Then form a series of longitudinal kerfs in it with a gang of saws, one set of kerfs extending in part way across from one side, and the other set alternating with the first—that is, out of register with them—and extending in from the opposite side far enough for all the kerfs to intersect a common plane, whereby one kerf may be made by following this plane to insersect all of said kerfs, and thus separate the logs into strips. I then with a saw or saws cut cross-kerfs into the opposite sides of the slabbed log, which sets of kerfs also intersect the same common plane and serve to determine the lengths of the billets. The log or piece thus preliminarily kerfed and still integral is now dried, preferably by placing it in a dry house or kiln. After being properly dried the kerfed log is passed over a saw or gang of saws (whichever may be necessary) in such a way as to intersect the preliminary kerfs already in it. In order to prevent the billets from falling apart, the log passes from the saw into a trough, and before removal from the trough the billets forming the log are bound with cords, wires, or withes to keep them together. The alternate arrangement of the preliminary cross-kerfing causes the billets to overlap each other or "break joints," so as to make such wrapping perfectly feasible and practicable. The bundles thus formed may be packed as closely for transportation as could the slabbed logs before the saw was applied to them. This constitutes my improved method, which I have further illustrated in the accompanying drawings, which will now be described.

Figure 1 represents a slabbed log or squared piece of wood provided with the preliminary kerfings only. Fig. 2 represents the same log or piece after it has received the secondary kerfings and been bound with cords to keep it intact. Fig. 3 represents in plan the arrange-

ment of the trough in relation to the saws, wherein the log or piece passes for being bound or wrapped after receiving the secondary kerfings. Figs. 4, 5, 6, 7, and 8 illustrate blocks and other pieces of wood which have received preliminary kerfings according to my invention.

In all of these views, *a a* represent one set of preliminary kerfings extending lengthwise of the log or piece, and *a' a'* the opposite set. These extend in far enough to intersect a common plane, (represented by the dotted line *x*.) In Figs. 1, 2, and 7, *b b'* represent the cross-cut kerfs, which also intersect said plane *x*. The kerfs of the opposite sets alternate, as shown, or are out of register. The line *x* also indicates the plane of the secondary kerf, which divides the piece up into billets, and where a gang of saws is used to make the secondary kerfs. *x' x'* represent the planes of these kerfs, which split up the billets.

Fig. 4 represents a block of only one billet's length.

Fig. 5 shows, in addition to the preliminary kerfs *a a'*, other preliminary kerfs, *c c'*, which are in the same planes as the kerfs *x x'*.

Fig. 6 shows a board in which the preliminary kerfs *a'' a'''* extend across the grain and the grain of the billets extends crosswise of them.

Fig. 8 is an end view of a log or block in which the preliminary kerfs *a a'* extend into different depths from opposite sides, as clearly shown. The secondary kerfs may extend through diagonally or at right angles to the kerfs *a a'*, as indicated by the dotted lines.

In Figs. 2 and 3 *y y* represent the cords or withes, which bind the billets together.

In Fig. 3, A represents a saw-table; B, the circular saws which produce the secondary kerfs, and C the trough into which passes the cut log or piece D. The trough is cut at proper intervals, so that the cords *y* may be properly placed, as shown.

Where the piece of wood is cross-cut into lengths suitable for billets, as in Fig. 4, the preliminary cross-kerfings *b b'* will not be required. The secondary cutting in such short pieces may be done by a splitting-machine instead of by saws.

Having thus described my invention, I claim—

1. The herein-described method of preparing kindling-wood, which consists in kerfing the log or piece of wood from opposite sides, the kerfs from the opposite sides extending in far enough to intersect a common plane, and said opposite kerfs being arranged to alternate, substantially as and for the purposes set forth.

2. The herein-described method of preparing kindling-wood, which consists in first kerfing the log or piece longitudinally from opposite sides, the kerfs from the opposite sides alternating and extending in far enough to intersect a common plane, and then kerfing said log or piece crosswise from opposite sides, said cross-kerfs also alternating and extending in far enough to intersect the same common plane as the longitudinal kerfs, substantially as and for the purposes set forth.

3. The herein-described method of preparing kindling-wood, which consists in first kerfing the unseasoned piece of wood from opposite sides, the opposite kerfs being arranged to intersect a common plane, whereby the billets may be separated by one secondary cut thereafter, and then drying said piece thus kerfed, substantially as and for the purposes set forth.

4. The herein-described method of preparing kindling-wood, which consists in first kerfing the log or piece of wood from opposite sides with kerfs arranged to alternate, as described, and all extending in far enough to intersect a common plane, then drying the log or piece thus kerfed, and then passing it once over a saw or gang of saws, whereby it is separated into billets, substantially as set forth.

5. The herein-described method of preparing kindling-wood, which consists in first forming in the log or piece the alternating preliminary kerfs, as herein described, then passing the log or piece so kerfed over a saw or gang of saws to separate it into billets, and then, while the billets still occupy their normal positions in the log or piece, wrapping the log with cords or withes, as described, whereby the billets are all held in place, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOSEPH L. SEYMOUR.

Witnesses:
HENRY CONNETT,
ARTHUR C. FRASER.