No. 860,406. PATENTED JULY 16, 1907.

F. L. McGAHAN.

FIREPROOF CHRISTMAS TREE.

APPLICATION FILED DEC. 28, 1906.

2 SHEETS—SHEET 1.

Fig. 1

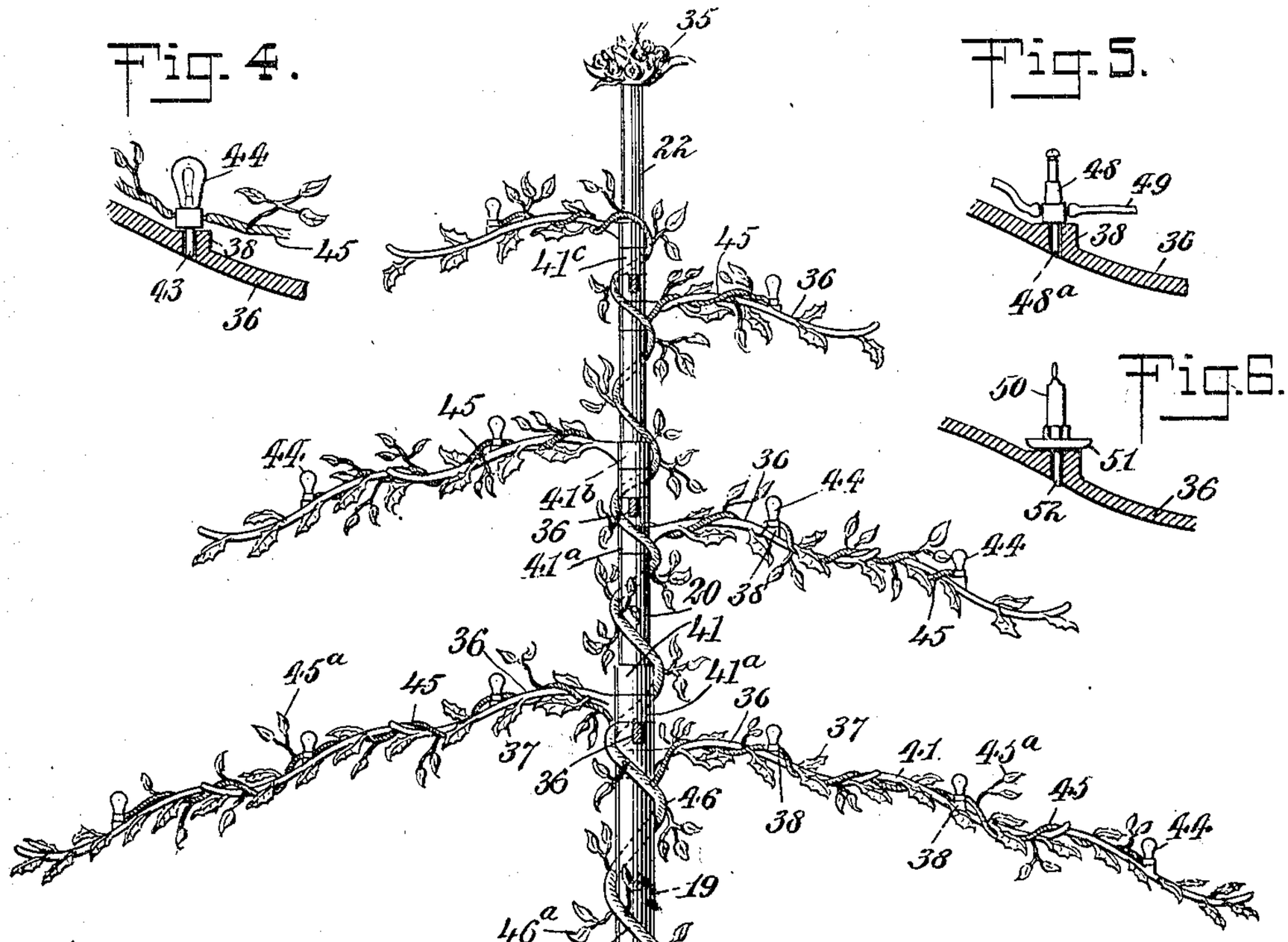


Fig. 4.

Fig. 5.

Fig. 6.

Fig. 2.

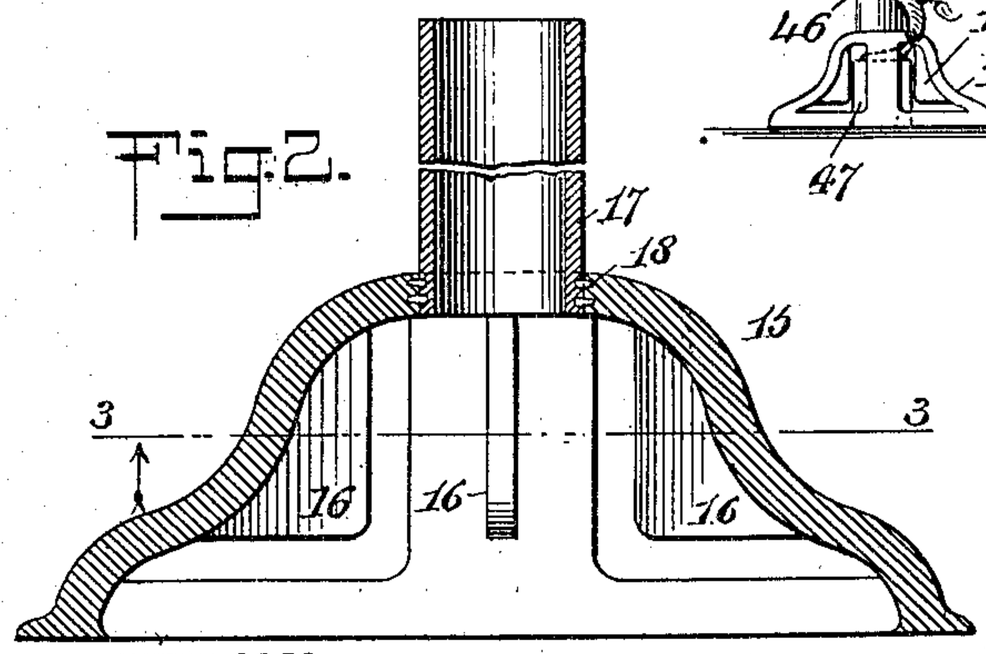


Fig. 3.

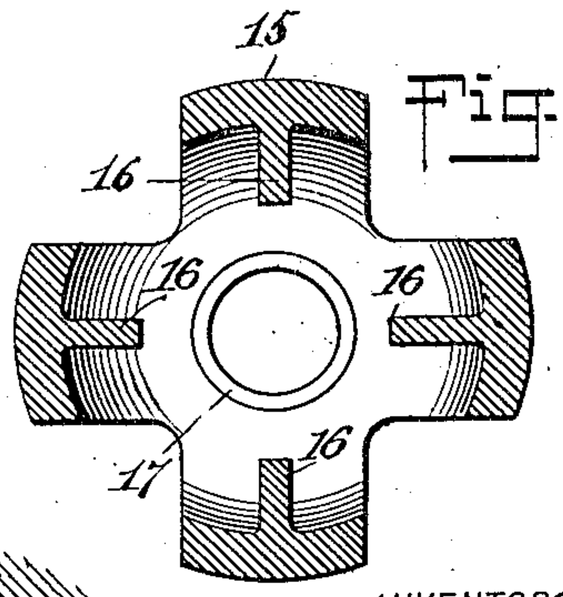
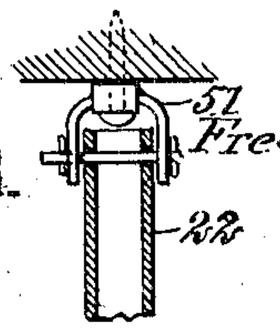


Fig. 6.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 7

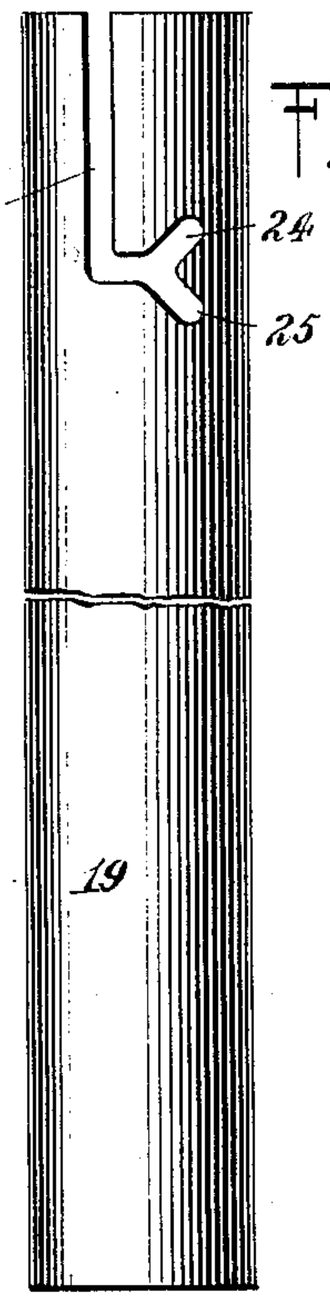


Fig. 8

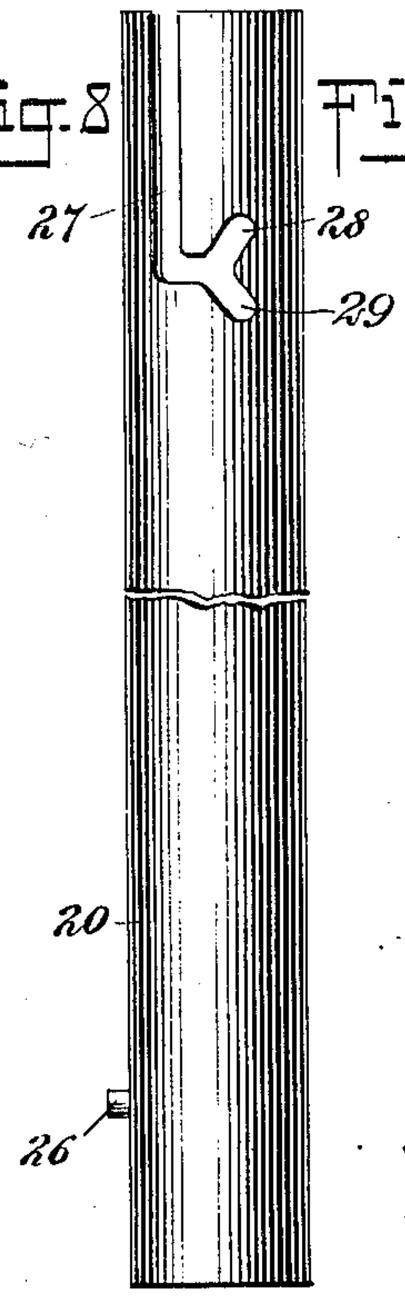


Fig. 9

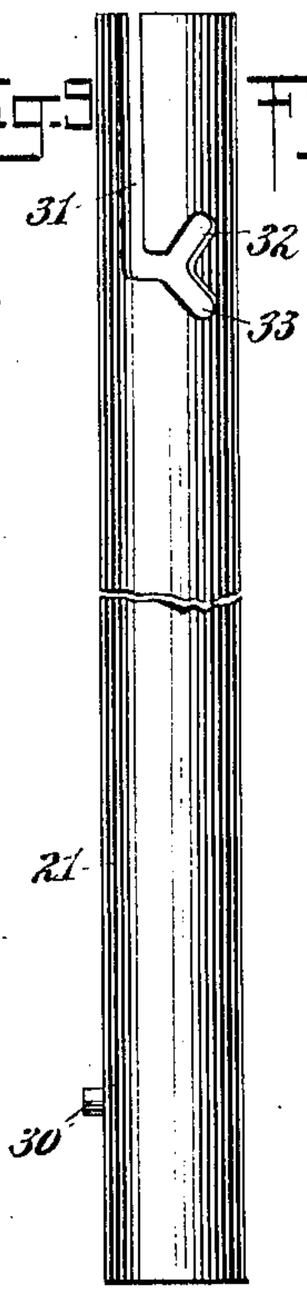


Fig. 10

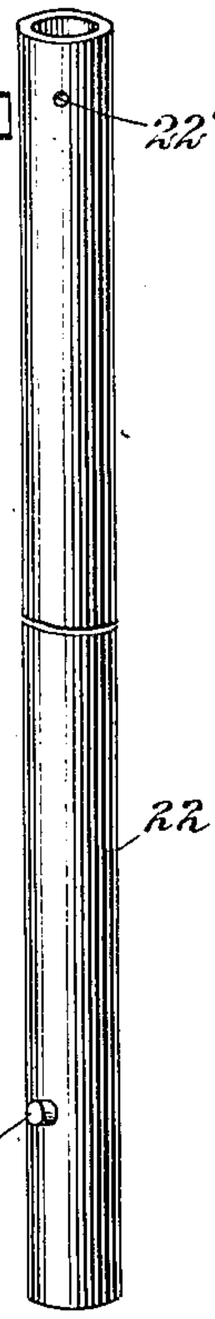


Fig. 11.

Fig. 13.

Fig. 15.

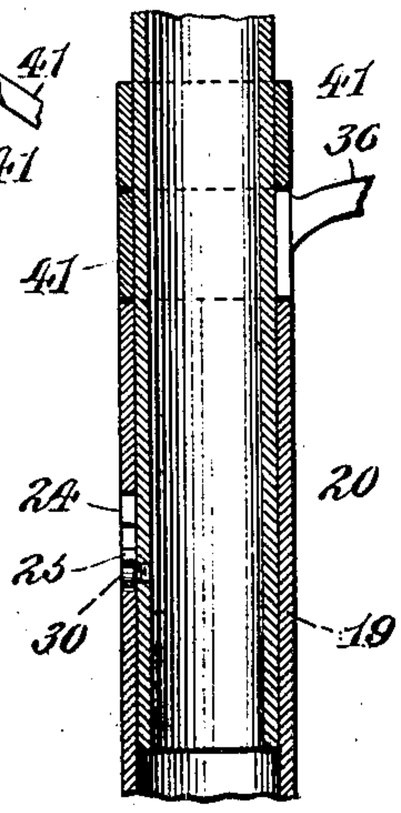


Fig. 12.

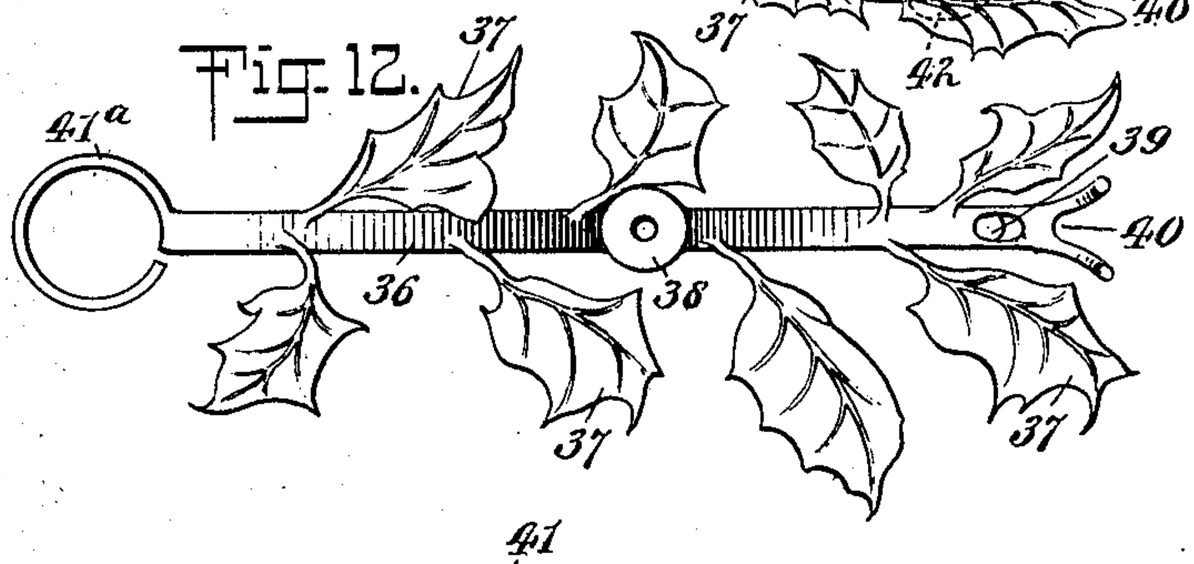
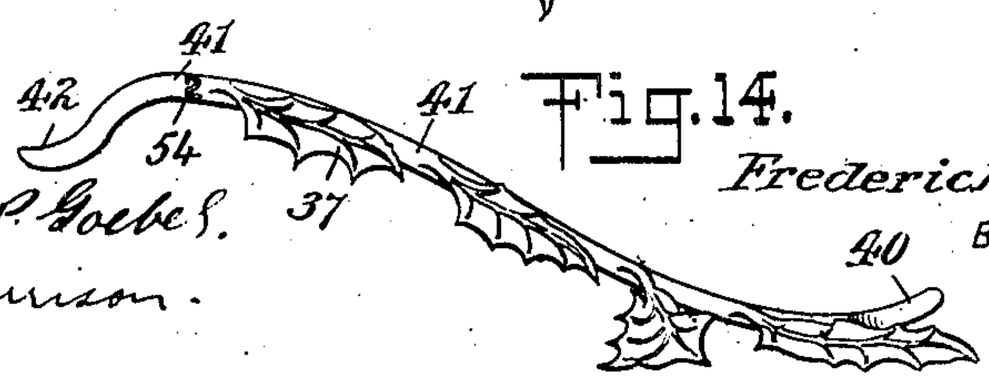


Fig. 14.



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UNITED STATES PATENT OFFICE.

FREDERICK LUTHER McGAHAN, OF LOS ANGELES, CALIFORNIA.

FIREPROOF CHRISTMAS TREE.

No. 860,406. Specification of Letters Patent. Patented July 16, 1907.

Application filed December 28, 1906. Serial No. 349,836.

To all whom it may concern:

Be it known that I, FREDERICK LUTHER McGAHAN, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have invented a new and Improved Fireproof Christmas Tree, of which the following is a full, clear, and exact description.

My invention relates to structures of the kind known as artificial trees, the object being to produce a composite or built up tree made of fire-proof material.

While my construction may be employed as a Christmas tree, that is not its only purpose as it may be used as an advertising device or as a display rack, and when made upon a small scale may be employed as a toy. The tree may be mounted in various ways, two of which are herein disclosed, and may be lighted by gas, electricity, or candles, all as hereinafter described.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the tree, certain limbs thereof being shown in section; Fig. 2 is an enlarged vertical section through the pedestal used for supporting the tree; Fig. 3 is a section through this pedestal taken upon the line 3—3 of Fig. 2 looking in the direction of the arrow and showing the webs 16 used as a spider for inclosing a battery 47 or equivalent member used for supplying a source of current or other material used for illumination; Fig. 4 is a fragmentary section showing how incandescent lamps 44 may be mounted upon the limbs; Fig. 5 is a somewhat similar section showing how gas burners 48 may be substituted for the incandescent lamps 44; Fig. 6 is a view somewhat similar to Fig. 4 but showing candles 50 as used instead of the incandescent lamps; Fig. 7 is a front elevation showing one section of tubing employed in building up the trunk of the tree; Figs. 8 and 9 show successively smaller sections of the trunk, these drawings being otherwise similar to Fig. 6; Fig. 10 shows the uppermost section of the trunk, this section being provided with means whereby the entire tree may be suspended if desired, as indicated in Fig. 16; Fig. 11 is a fragmentary side elevation showing a part of one of the composite limbs of the tree; Fig. 12 is a plan view of one of the sections from which the limbs are built up; Fig. 13 is a fragmentary elevation partly in section, showing the manner of joining together consecutive sections of the limbs; Fig. 14 is a side elevation of one of the outer sections 41 of the limbs; Fig. 15 is a fragmentary central section through a part of the composite tree trunk showing the manner of uniting the joints thereof together and of mounting the limbs upon the trunk; Fig. 16 is a fragmentary elevation showing a swivel 51 whereby the tree may be suspended if desired.

A pedestal 15 is provided with webs 16 projecting toward the center, the inner edges of these webs being parallel with each other. As indicated in Figs. 1 and 2 a short tube 17 is secured to the pedestal 15 by anchorages 18 as indicated in Fig. 2, this tube 17 being thus permanently and rigidly connected in position. The successive sections 19, 20, 21, 22 are entirely separate and are coupled up into a single composite member constituting the trunk of the tree. The section 19 is provided with a bayonet slot 23 which merges into obliquely disposed terminal slots 24, 25. The tubular section 20 is of such diameter as to fit neatly into the upper end of the tubular section 19 and is provided with a boss 26 which fits neatly into the slots 23, 24, 25. The tubular section 20 is provided at its top with a bayonet slot 27 similar to the one numbered 23 and similarly merging into terminal slots 28, 29. The tubular section 21 is of smaller diameter than the tubular section 20 and is adapted to fit neatly thereinto and is provided with a boss 30 which fits into the slots 27, 28, 29. The uppermost tubular section 22 is provided with a boss 34 which fits into the slots 31, 32, 33 in the same manner. This section is further provided with holes 22^a employed in connection with the swivel 51, as hereinafter described, and as indicated in Fig. 16.

In order to assemble the tree trunk the pedestal 15, which should be heavy enough to hold firmly in position, may be rested upon the floor and the successive sections 19, 20, 21, 22 are coupled up, as above described, the lowermost section 19 being fitted upon the tube 17. If desired, a bouquet 35, or similar ornament, may be mounted upon the upper end of the section 22. If however, it be desired to suspend the tree, a clevis 51 (see Fig. 16) may be employed. As may readily be seen from Figs. 7, 8, 9, 10 the bosses 26, 30, 34 may be guided downwardly into the terminal slots 25, 29, 33 or may be moved obliquely upward into terminal slots 24, 28, 32. When the tree is to rest upon the pedestal shown in Fig. 2 (see Fig. 1) the bosses 26, 30, 34 occupy the terminal slots 25, 29, 33, whereas, if the tree is to be suspended, the bosses 26, 20, 34 occupy the terminal slots 24, 28, 32. It will thus be observed that the bayonet slots and terminal slots afford a ready means whereby a tree trunk may be coupled either for resting upon a pedestal or for suspension from an overhead support.

The sections 36 which are built up into limbs are provided with leaves 37 and with rests 38, the latter being employed for supporting lamps, candles or the like, as hereinafter described. Each section 36 is provided adjacent to its outer end with an aperture 39 and terminates in a fork 40. Each next succeeding section 41 (see Fig. 14) is provided with an end portion 42 adapted to pass obliquely downwardly through the aperture 39, so that another portion of the section 41 rests

within the fork 40, as will be understood from Figs. 11, 12, 13. Each section 36 terminates in an annular portion 41^a and this is left open, as indicated in Fig. 12. By leaving these collars open they may be expanded or contracted in diameter so that any section 36 may, by comparatively little alteration in its structure, be employed either for the bottom limbs of the tree or for other limbs thereof. In other words, the sections 36 are all exactly alike, but the collars 41, 41^a, 41^b, 41^c are of different diameters (see Fig. 1), so as to conform to different diameters of the tree trunk, they being contracted or expanded as much as may be necessary to fit them into position.

A number of incandescent lamps 44, each provided with a stem 43, are mounted upon the rests 38, the stems 43 serving to hold the lamps steadily in position, as will be understood from Fig. 4. I find that a good arrangement is to use as many lamps as there are sections of the limbs. These lamps are connected in any desired manner with electric cables 45 which branch outwardly from a larger cable 46. These cables are so constructed as to resemble a vine and its branches, and in furtherance of this purpose are provided with leaves 45^a, 46^a. In the cables the covering is of mineral wool serving as an insulating material and so colored as to simulate a vine in appearance.

A storage battery is shown at 47 and is encompassed between the webs 16 in such manner as to be comparatively inaccessible while the tree is in use. The pedestal 15 corresponds to the root of the tree and the cable 46 corresponds to a vine growing outwardly from the root of the tree and is entwined upon the tree trunk, the various cable branches 45^a being similarly entwined upon the several limbs or branches of the tree.

Gas burners 48 (see Fig. 5) may be substituted for the incandescent lamps 44 and may be supplied by rubber or metallic tubes 49, the latter being disposed in the same manner as the electric cables and used for the same general purpose (to wit, that of supplying an illuminant) where scenic effects are concerned. In this case the gas burners 48 are each provided with a pin 48^a whereby the burner may be mounted in substantially the same manner as the incandescent lamps.

If it is desired not to use gas or electricity, the candles 50 may be substituted therefor. Each candle 50 rests in a candle stick 51 so arranged as to prevent the dropping of melted tallow or wax, and each candle stick is provided with a pin 52 which supports the candle stick and candle, substantially in the manner above described, in reference to the support of the other lighting members.

The several sections 36, 41 may be numbered, as indicated in Figs. 11, 14. This is for the purpose of enabling the parts to be readily fitted together. In small trees, where a comparatively small number of parts are employed, the numbers may not be necessary.

Where the tree is made upon a small scale, it may be employed for the purpose of a toy, that is to say, a child may amuse himself by building up and taking down the tree piece by piece. In this way instruction may be imparted to young children somewhat upon the kindergarten principle.

Of course, lights of any desired color or colors may be employed.

It will be noted that both the trunk and branches of the tree are composite structures built up of separate units, practically all of which are interchangeable. Such being the case trees of various sizes may be made from pieces of the same size and character simply by multiplying the number of parts. Every part of the tree is fire-proof and the result is that the tree as a whole and each separate piece of it is free from danger of combustion. It will also be noted that as the limbs are virtually made up of units and these units are numbered, the tree partakes, to some extent, of the nature of a puzzle and may be employed as such independent of its general purpose as a fire-proof tree.

While my main idea concerns a Christmas tree, I do not limit myself to the use of my structure for this purpose, as it may be employed in any relation where a fire-proof or composite supporting stand is desirable.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A knockdown tree structure comprising a plurality of separate fire-proof members built up into a composite tree trunk having composite branches.

2. A knockdown tree structure, comprising a portion representing a tree trunk, and a plurality of separate fireproof members detachably connected with said portion and with each other so as to form extensible limbs projecting outwardly from said portion.

3. A tree construction comprising a trunk, and limbs detachably mounted thereupon, said limbs being made up of sections detachably connected together.

4. A tree construction comprising tubular members telescopically fitting each other, one of said tubular members being provided with a bayonet slot merging into terminal divergent slots, the other of said members being provided with a boss for entering said slots, and means for mounting limbs upon said tubular member.

5. A tree construction comprising a plurality of sections provided with foliage and made to simulate parts of a limb, said sections being provided with means whereby they may be detachably connected together so as to form a limb, and means for supporting said limb.

6. A tree construction comprising a plurality of separate sections provided with means for detachably connecting them together so as to form a limb, each of said sections being provided with a rest, illuminating members mounted upon the several rests, and means for energizing said illuminating members.

7. A tree construction comprising a plurality of separate sections detachably connected together and representing a trunk, and a plurality of separate limbs mounted upon said trunk, each of said limbs being built up of units detachably connected together.

8. As an article of manufacture, a limb section comprising a center portion provided with leaves and also provided with means for detachably supporting another section, said member being also provided with a collar of ductile material so that its diameter may be varied for fitting it upon a larger or a smaller part of a tree trunk.

9. In a tree construction, the combination of a member representing a tree trunk, illuminating members mounted thereon, and conduits connected with said illuminating members for energizing the same, said conduits being provided with artificial foliage.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK LUTHER McGAHAN.

Witnesses:
FRANK G. BRYANT,
LIZZIE D. BRETT.