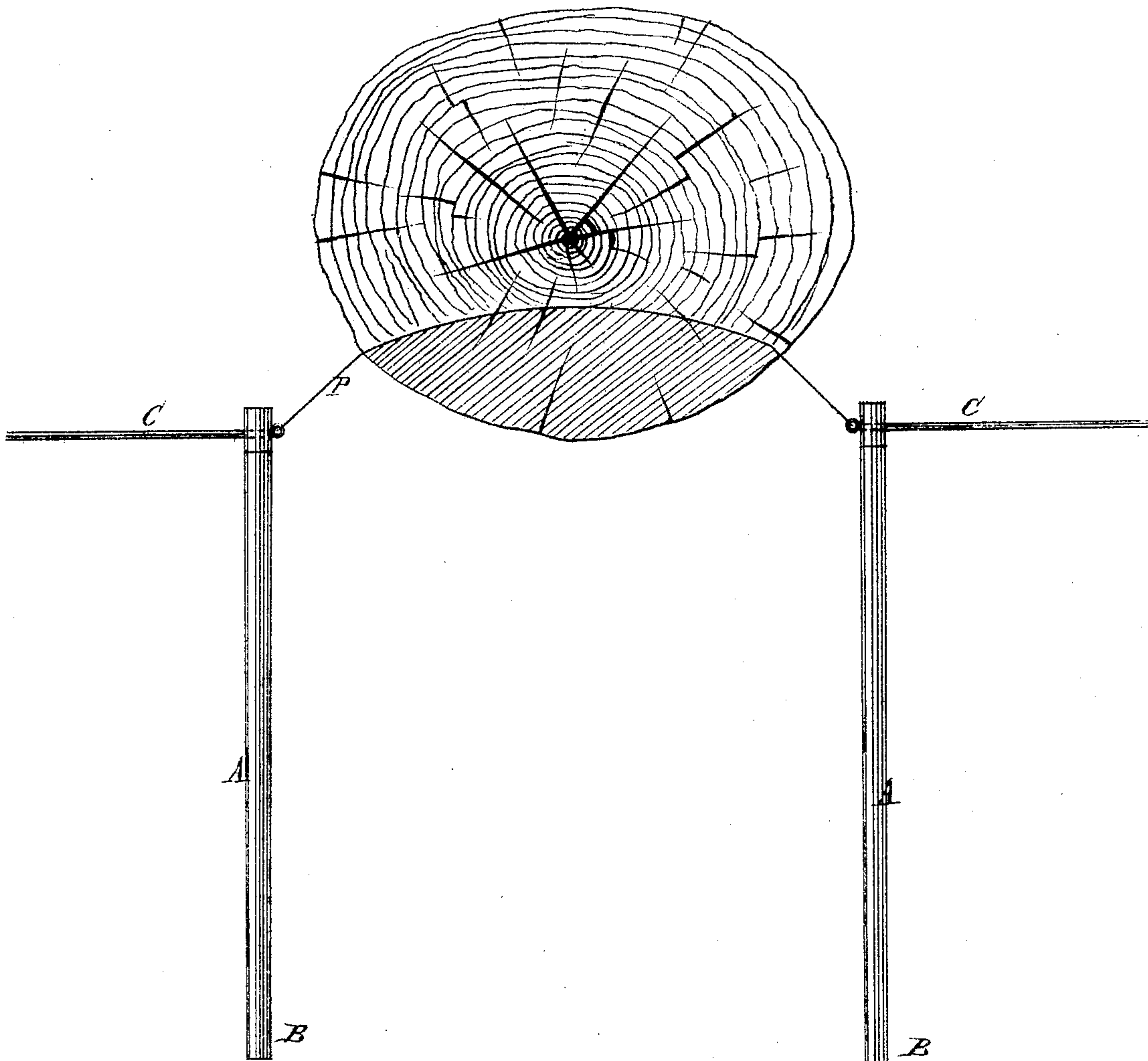


GEORGE ROBINSON.

Improvement in Electrical Wood-Dividers.

No. 127,270.

Patented May 28, 1872.



Witnesses:

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# UNITED STATES PATENT OFFICE.

GEORGE ROBINSON, OF NEW YORK, N. Y.

## IMPROVEMENT IN ELECTRICAL WOOD-DIVIDERS.

Specification forming part of Letters Patent No. 127,270, dated May 28, 1872.

Specification describing a new and Improved Electrical Wood-Divider, invented by GEORGE ROBINSON, of the city, county, and State of New York.

I propose to sever or divide wood, whether growing or otherwise, by means of a wire heated to redness, by a current of electricity. For this purpose a flattened wire, preferably of platinum, is to be connected at each end with a larger copper wire, conducting, respectively, the positive and negative current of a galvanic battery or other source of electricity of sufficient power to render the platinum wire red hot. The length of wire so heated may vary according to the thickness of the wood to be divided, and the power of the battery may be regulated according to the length of the wire, and so as to maintain the latter at a red heat without melting or burning it.

Where the object is simply to cut across a tree or a log of moderate size it will only be necessary to place the platinum wire while cold across the wood at the point where it is wished to divide the latter, and then to set the battery in action, when the weight of the wires, aided, if required, by that of small objects attached to the adjacent copper wires, will press the heated platinum sufficiently against the wood to enable the red-hot wire to burn its way through.

A similar arrangement may also be used for squaring logs, cutting off branches of fallen trees, &c.

For felling trees or cutting wood according to any particular pattern or shape the red-hot wire may be guided by the operator's hands by means of the following contrivance, shown in the drawing: C C, the copper wires from the battery connected with P, the platinum wire; A A, two flat thin pieces of porcelain, glass, or earthen-ware, or of tough, well-dried wood or other non-conducting material, fast-

ened to the copper wires near their junction with the platinum. Each of these is to be grasped at B by a hand of the operator, so as to enable him to press the red-hot platinum wire gently in any required direction against the wood to be divided. In this way successive partial sections may be made around the circumference of a tree, near the ground, so as gradually to divide the stem and fell the tree, the successive partial sections burnt out by the heated wire accomplishing the same ultimate result as that now obtained by the more laborious use of the axe.

In other cases two or more wires may be placed vertically and maintained at a red heat while the wood to be divided is lowered slowly down an inclined plane or otherwise gently pressed against them at the points where it is desired to obtain simultaneously two or more sections of the wood.

Other modifications of the process will easily suggest themselves, but in all the same general mode of dividing wood by bringing it into contact with the electrically-heated wire will be recognized as the effective agent.

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

1. The process of dividing wood by a platinum or other wire heated by electricity and applied in the manner described.

2. I also claim an electrical wood-dividing apparatus, consisting of a platinum wire, insulated handles, and copper wires connecting the platinum wire with the positive and negative poles of a battery, substantially as specified.

GEORGE ROBINSON.

Witnesses:

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