

**No. 709,545.**

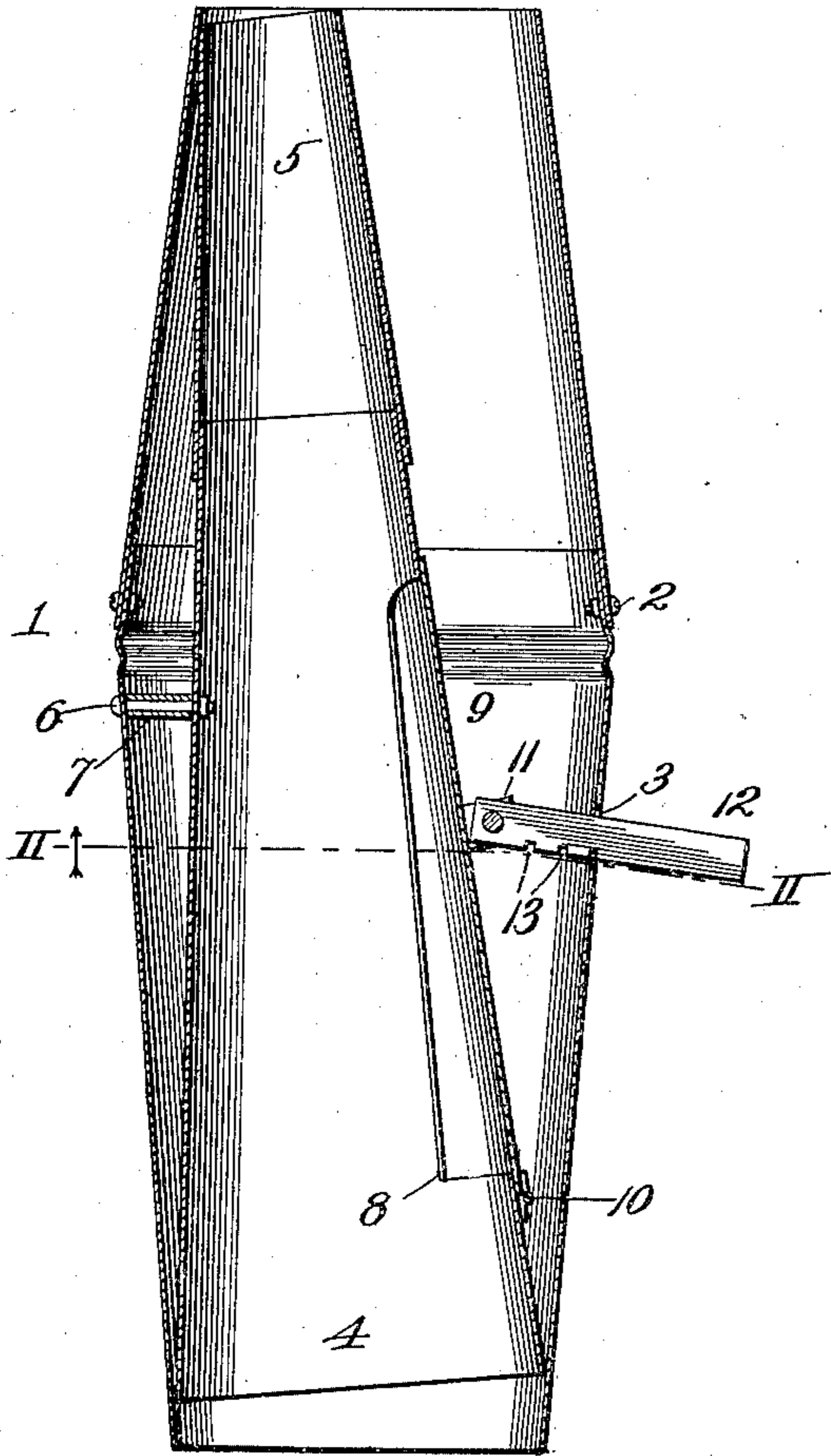
**Patented Sept. 23, 1902.**

**J. C. HOYT.**  
**STOVEPIPE ATTACHMENT.**

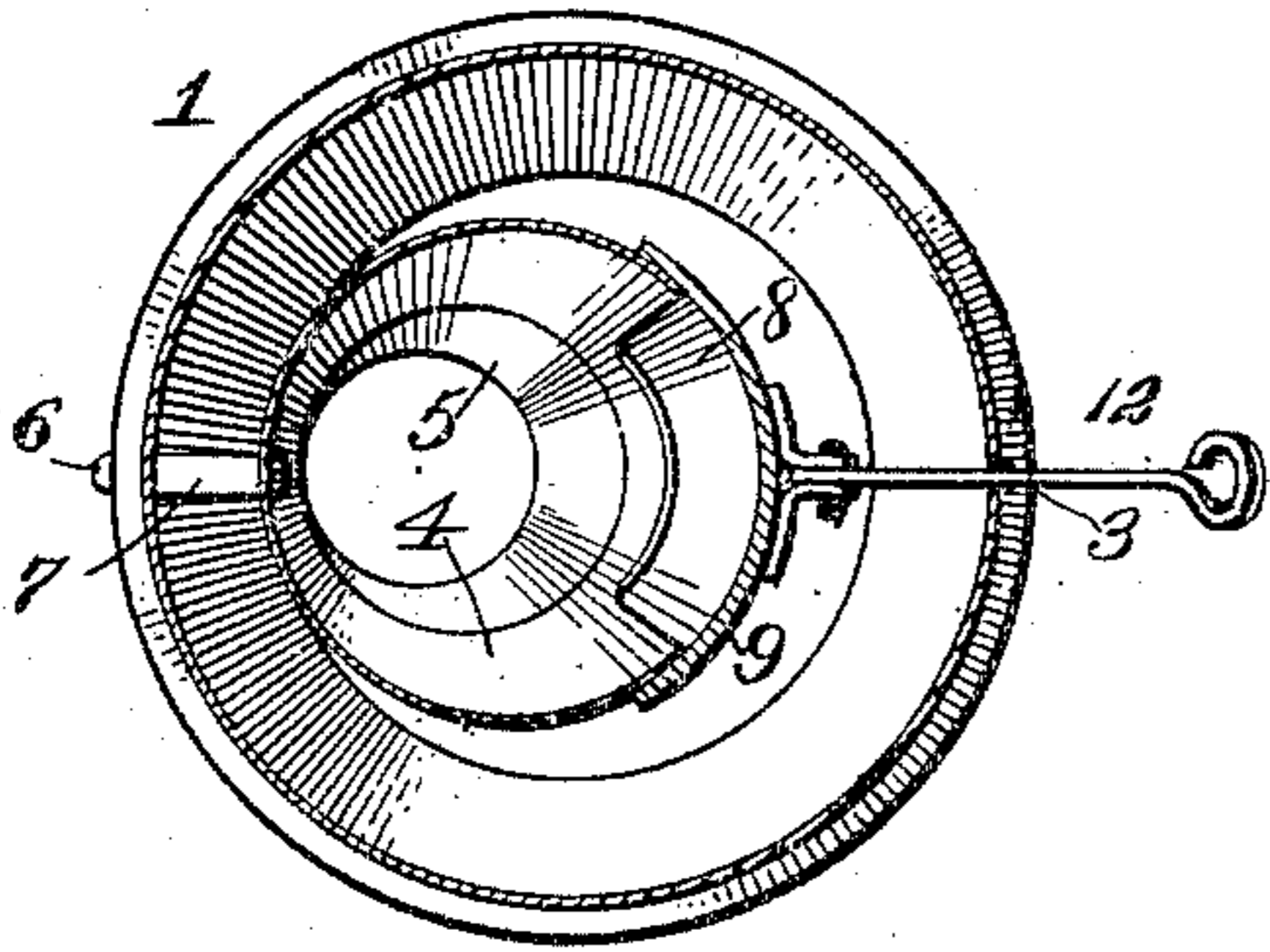
(Application filed Oct. 19, 1901.)

(No Model.)

*Fig. 1.*

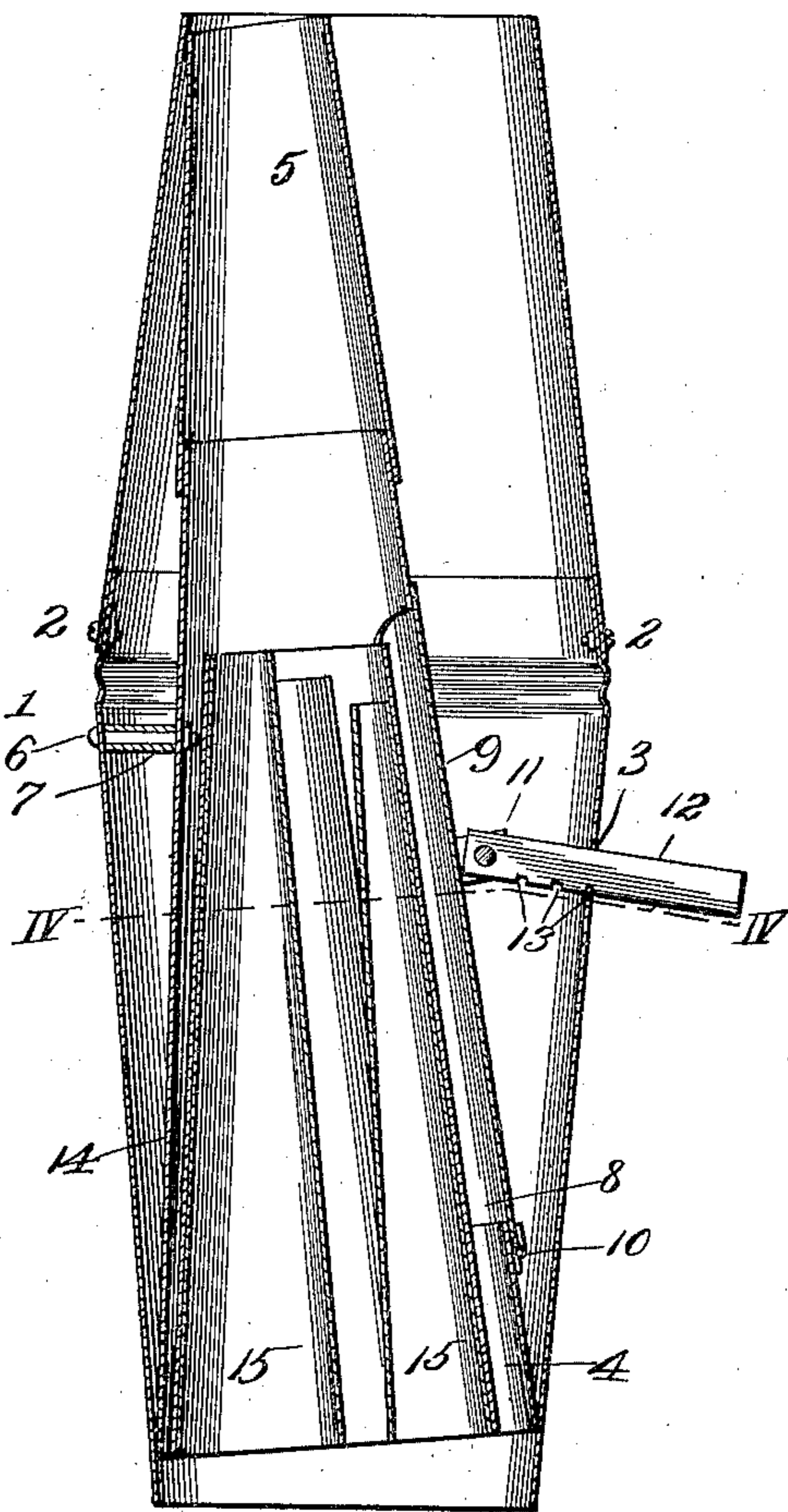


*Fig. 2.*

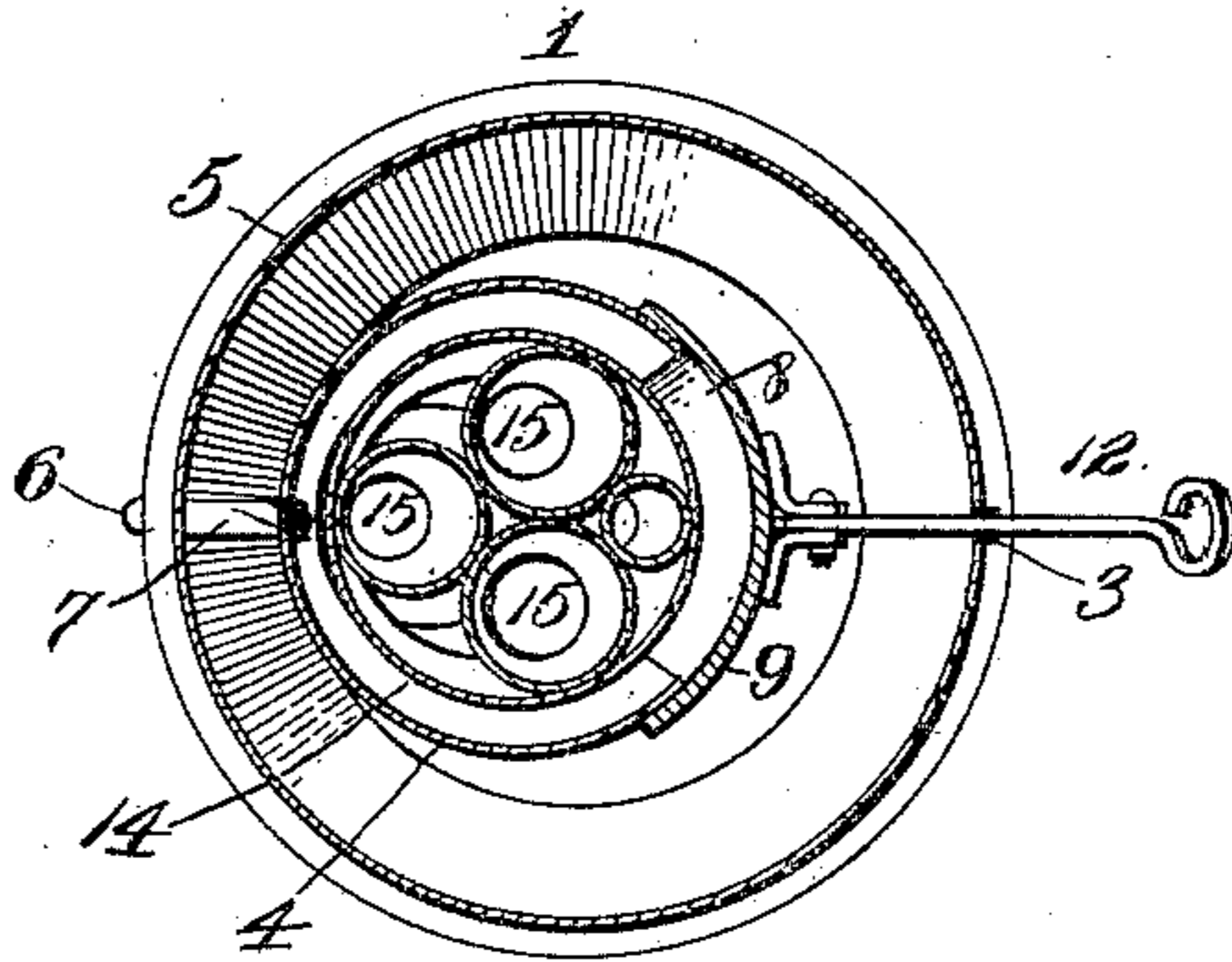


Witnesses:  
Arthur M. Arthur  
H. C. Rodgers.

*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

JOHN C. HOYT, OF RICHMOND, MISSOURI.

## STOVEPIPE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 709,545, dated September 23, 1902.

Application filed October 19, 1901. Serial No. 79,209. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. HOYT, a citizen of the United States, residing at Richmond, in the county of Ray and State of Missouri, have invented certain new and useful Improvements in Stovepipe Attachments, of which the following is a specification.

My invention relates to stovepipe attachments; and it consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed; and my object is to produce a device of this character whereby a great saving of fuel is effected, the smoke nuisance is largely eliminated, and a more perfect distribution and radiation of heat is obtained than with an ordinary stove.

A further object is to produce a device of this character which is of simple, durable, and cheap construction and can be easily and cheaply applied to stove or furnace pipes; and in order that the invention may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents a vertical central section of a stovepipe attachment embodying my invention, but with one element omitted. Fig. 2 is a section taken on line II II of Fig. 1. Fig. 3 is a vertical longitudinal section of a stovepipe embodying the completed invention. Fig. 4 is a section taken on line IV IV of Fig. 3.

Referring now to the drawings in detail, where like reference characters indicate corresponding parts, 1 designates a pipe preferably enlarged or swelled at its middle and adapted to act as a substitute for the joint of stove or furnace pipe which contains the damper, though it should be understood that the invention may be applied to an ordinary section of pipe, if desired.

For convenience in assembling the various parts pipe-section 1 consists of two frustum-shaped parts fitting telescopically and bolted together at their large ends, as shown at 2, the lower section being provided with a small slot or hole 3 for a purpose which hereinafter appears.

4 designates an upwardly-tapering tube which fits snugly at its lower end in the lower section of pipe 1 and is tilted rearwardly therein, so that the upper end of its tapering

nozzle or extension 5 shall rest against the rear side of the upper section of pipe 1.

Tube 4 5 is secured reliably in the relation described by means of the tie-bolt 6 and the spacing-sleeve 7, connecting the lower portions, and said lower portion of the tube is provided in its front side with an opening 8, which by reason of the slope or pitch of the tube hereinbefore referred to has its upper end disposed inward of its lower end for a purpose which hereinafter appears.

9 designates the damper, of size and form to close the elongated opening 8 and hinged at its lower end to tube-section 4, as at 10. The damper is provided with a lug 11, pivotally connected to the handle 12, extending inwardly through slot 3 and provided with a plurality of notches 13 in its underside, which by engagement with the lower edge of the slot locks the damper in the position desired—closed, wide open, or at an intermediate point.

In the practical operation of this device the damper is at first opened wide, so as to give the combustion-chamber the full amount of draft. As the fire gains headway the damper is closed to contract the passage, and thereby diminish the draft and effect a more economical consumption of fuel.

For furnaces and equivalent structures I have found it desirable to insert in the lower tube-section a smaller pipe or tube 14, so as to provide an annular passage or space between the same and said lower tube-section, and to nest in said pipe or tube 14 a series of upwardly-tapering tubes or nozzles 15 to provide a skeleton structure, which becomes red-hot, and thereby aids the fire proper in the more thorough and effectual consumption of the smoke and gases, the fact that it is a skeleton structure serving to provide several smaller passages, through which the products of combustion pass, and consequently bring the parts of the same into a nearer and more intimate relation with the structure than would be possible if the small tubes were not employed. By thus providing for the consumption of practically all of the heavier products of combustion and gases it is obvious that but little smoke will escape from the flue with the lighter gases.

From the above description it will be apparent that I have produced an attachment

for stove or furnace pipes which embodies the features of advantage enumerated as desirable in the statement of invention and which is obviously susceptible of modification in various particulars without departing from its spirit and scope or sacrificing any of its advantages.

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

1. A stovepipe attachment, comprising a stovepipe, an upwardly-tapering tube therein; said tube being pitched or inclined rearwardly from its lower to its upper end, and having its lower end fitting tightly in and of substantially the same area as the lower end of the pipe, and its upper end of much smaller diameter than the pipe, and provided in its front side with a vertically-elongated opening, a damper controlling said opening, a handle connected to the damper and projecting through the inclosing pipe, and a smaller tube secured within the lower portion of the tapering tube and containing a nest of smaller tubes or nozzles; said smaller tubes or nozzles tapering upwardly likewise.

2. A stovepipe attachment, comprising a stovepipe, an upwardly-tapering tube therein and pitched or inclined rearwardly from its lower to its upper end and provided with a vertical elongated opening in its front side, the lower end of said tube being of substantially the same diameter as the contiguous part of the pipe, while its upper end is of smaller diameter than the contiguous portion of said pipe, a bolt connecting the rear sides, of the pipe and tube, a sleeve upon said bolt and separating the pipe and tube, a damper 9, controlling the elongated opening of the tube, and hinged at its lower end to the tube contiguous to the lower margin of said opening, and a handle pivoted to said damper and projecting forwardly through the pipe, and provided with a plurality of notches to engage said pipe and secure the damper in the desired position.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN C. HOYT.

Witnesses:

H. C. RODGERS,  
G. Y. THORPE.