C. T. McCLARIN. STOVEPIPE FASTENER.

APPLICATION FILED JUNE 18, 1903. NO MODEL. 2 SHEETS-SHEET 1. Hig. 3.

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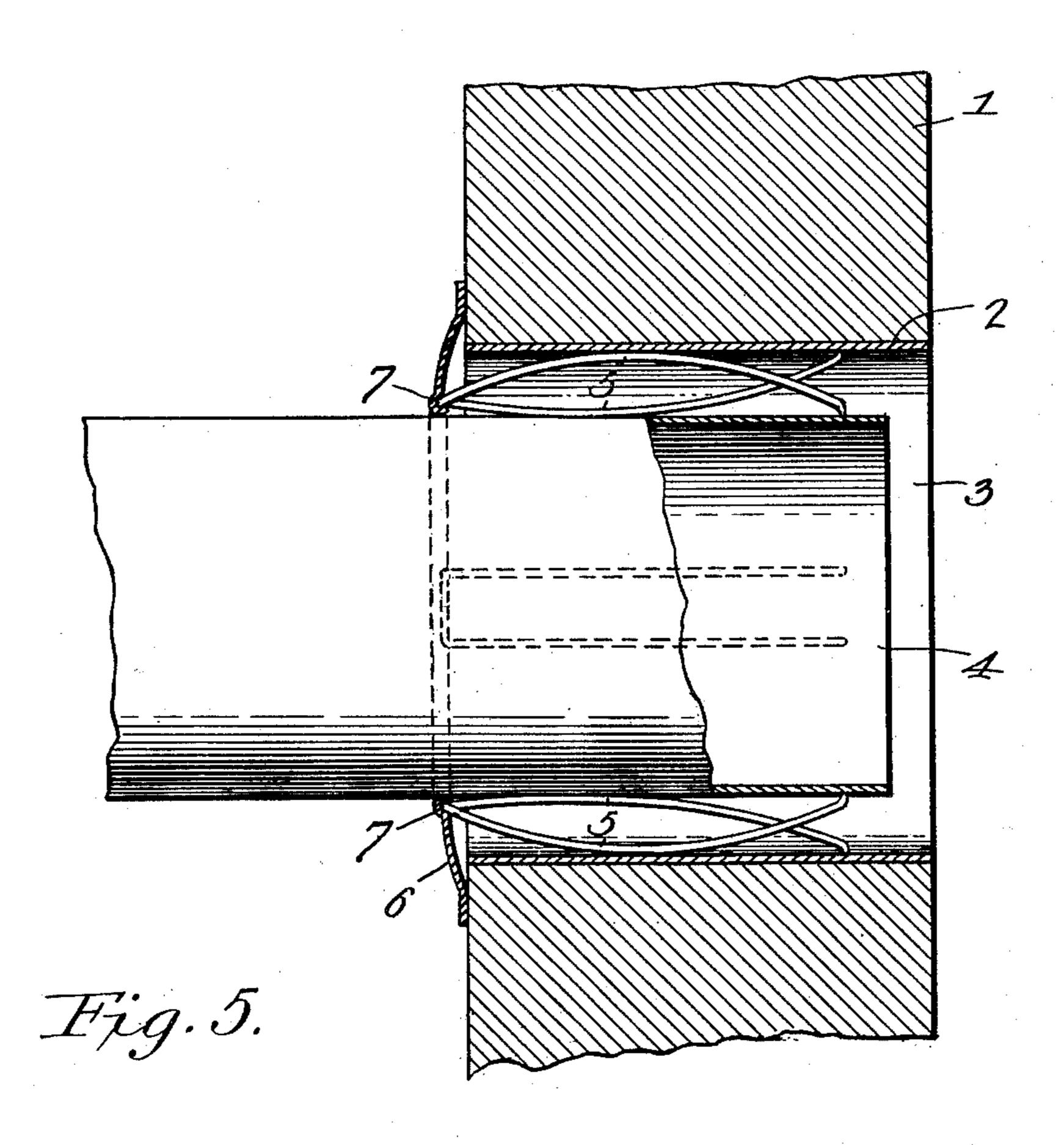
THE NORBIS PETERS CO., PHOTO-LITHOU WASHINGTON, D. C.

PATENTED APR. 5, 1904.

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United States Patent Office.

CHARLES T. McCLARIN, OF WILLIAMSPORT, PENNSYLVANIA.

STOVEPIPE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 756,266, dated April 5, 1904.

Application filed June 18, 1903. Serial No. 162, 103. (No model.)

To all whom it may concern:

Be it known that I, Charles T. McClarin, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Stovepipe-Fastener, of which the following is a specification.

My invention relates to stovepipe-fasteners, and is especially directed to that class of fasteners which are employed for securing the end of the pipe in the flue-opening, and has for its objects to produce a device of this character of simple construction which will be efficient in operation, one by which the cap-plate and pipe will be maintained in secure assemblage with the flue-opening, and which holds the capplate or pipe-collar securely to the wall when the pipe is not in use, so that any flue-stopper can be used in connection therewith.

To these ends the invention comprises the novel details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a sectional elevation illustrating my improved device applied in use. Fig. 2 is a detail perspective view of the cap-plate carrying the engaging fingers, showing one arrangement of the latter. Fig. 3 is a similar view showing another arrangement of the fingers. Fig. 4 is a similar view disclosing one of the features of my invention. Fig. 5 is a sectional elevation showing the cap-plate of Fig. 3 applied in use.

Referring to the drawings, 1 indicates a portion of a flue-wall provided with a pipe-opening 2, in which is mounted the usual sleeve or thimble 3, constituting a lining for said opening and consisting of a suitable length of stovepipe.

4º 4 indicates the end of the stovepipe, which in practice is inserted in the opening 2 of the flue and maintained securely therein by engaging fingers 5, attached to a cap-plate 6, which fits upon the stovepipe and bears upon the outer face of the flue-wall at the outer end of the pipe-opening 2, as usual. These parts, with the exception of the fingers 5 and the manner of attaching them to the cap-plate

6, may be of the usual or any suitable construction and material.

The fingers 5 are composed, preferably, of wire, suitable lengths of which are bent into the form of U-shaped members, the crown portions 7 of which members are attached to the cap-plate, while the arms of the members 55 extend outward from the plate at substantially right angles thereto and in parallel relation, forming the engaging fingers, which are thus disposed in pairs secured by a common attaching means to the plate. In Fig. 2 60 the fingers are shown as attached to the plate by soldering the crown portions 7 of the members thereto, while in Fig. 4 they are attached by forming integral tongues 8 upon the capplate during the formation of the latter and 65 bending said tongues around the crown portions of the members, thus pivotally associating the fingers with the plate to permit ready folding of the parts for shipment. It is also apparent that by this arrangement the fingers 70 may be readily detached from the plate 6 and other fingers of a greater or lesser length substituted therefor should such interchanging of the fingers be found necessary or desirable in practice. The fingers 5 are of such a length that 75 when the parts are in assemblage, as in Fig. 1, the inner ends of the fingers will terminate short of the inner end of the pipe, making it easy to adjust pipe, and the terminals of the free ends of the fingers are flattened and bent 80 at an angle to form angularly-disposed sharpened tips, which have a tendency to bite into the metal of the pipe for more securely engaging the same. As seen in Fig. 2, there are four sets or pairs of the fingers 5, two sets 85 of which, preferably those oppositely disposed, are bowed or curved outwardly relative to their point of attachment with the cap-plate, while the two remaining sets or pairs are bowed or curved inwardly relative to said 90 point of attachment, the bow or curvature of all of the fingers being continuous and longitudinally thereof from end to end. Thus when the parts are assembled one-half of the whole number of fingers will bear adjacent to their 95 longitudinal center upon the inner wall of the

opening 2 and at their free ends upon the outer wall of the stovepipe, while the remaining half of the fingers will bear adjacent to their longitudinal centers upon the wall of the 5 stovepipe and at their free ends upon the inner wall of the opening 2, thus having a double bearing or frictional engagement with said parts, which will maintain the cap-plate securely in position and at the same time ro firmly hold the pipe. Attention is here directed also to the fact that the fingers are springy in character and are so bent or curved that the distance between the free ends of the fingers will be somewhat less than the di-15 ameter of the pipe prior to its insertion between them, whereby when the pipe is inserted the fingers will be spread or forced outward, thus forcing them firmly against the inner wall of opening 2 at their points of 20 contact therewith, while the resistance offered at such points to the further spreading of the ends maintains the latter in firm engagement with the pipe. It will also be obvious from this construction that the parts may be readily 25 adjusted for varying sizes of openings by imparting to the fingers a greater or lesser bend longitudinally.

On reference to Fig. 3 it will be seen that instead of reversely bending the diametrically 30 oppositely disposed pairs of fingers I reversely bend the fingers of each pair, whereby the fingers will, as above described, engage both the pipe and the opening 2, one-half of the whole number of fingers contacting at 35 their centers with the pipe and engaging at their ends with the pipe-opening and the other half engaging at their centers with the pipeopening and at their ends with the pipe. Thus it will be seen that practically the same 40 results are attained by both arrangements and that the fingers will readily accommodate themselvs to any irregularities which may exist in the surface of either the pipe or thimble.

From the foregoing it will be seen that I produce a device of comparatively simple construction which in practice will admirably perform its functions for the attainment of the ends in view, and it is to be understood that I do not limit myself to the precise details herein set forth, inasmuch as minor changes may be made therein without departing from the spirit of the invention.

Having thus described my invention, what

I claim is—

of engaging fingers attached thereto, a number of said fingers being outwardly curved longitudinally and adapted to bear at their free ends upon a pipe and between their ends upon the walls of the pipe-receiving opening and the remainder oppositely curved for re-

verse engagement with said parts when assembled, the free ends of the fingers terminat-

ing short of the end of the pipe.

2. As a new article of manufacture, a capplate of the type described having a plurality of engaging fingers attached thereto, a number of said fingers being outwardly curved longitudinally and adapted to bear at their 70 free ends upon a pipe and between their ends upon the walls of the pipe-receiving opening and the remainder oppositely curved for reverse engagement with said parts when assembled, the free ends of the fingers terminatoring short of the end of the pipe and having sharpened tips for engagement with the respective parts.

3. As a new article of manufacture, a capplate of the type described having a plurality so of **U**-shaped wire members disposed with their crown portions toward and attached to the plate and forming engaging fingers disposed in pairs, one finger of each pair being outwardly curved longitudinally and adapted to bear at its free end upon a pipe and between its ends upon the wall of the pipe-receiving opening and the other oppositely curved for reverse engagement with said parts when assembled, the free ends of the fingers terminat- 90

ing short of the end of the pipe.

4. As a new article of manufacture a capplate of the type described having a plurality of engaging fingers pivotally connected therewith, a number of said fingers being outwardly of curved longitudinally and adapted to bear at their free ends upon a pipe and between their ends upon the walls of the pipe-receiving opening and the remainder oppositely curved for reverse engagement with said parts when assembled, the free ends of the fingers terminating short of the end of the pipe.

5. As a new article of manufacture a capplate of the type described having a plurality of integral tongues and a plurality of U-shaped wire members forming engaging fingers and pivotally connected with the plate by bending said tongues one over the crown portion of each member, a number of said fingers being outwardly curved longitudinally and adapted to bear at their free ends upon a pipe and between their ends upon the wall of the pipe-receiving opening and the remainder oppositely curved for reverse engagement with said parts when assembled, the free ends of the fingers its terminating short of the end of the pipe.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in

the presence of two witnesses.

CHARLES T. McCLARIN.

Witnesses:

B. Berndt, J. C. Hill.