

(No Model.)

W. H. HOOPES & G. PAIST.

CONTRACTIBLE CORE OR CENTER.

No. 278,551.

Patented May 29, 1883.

Fig. 1.

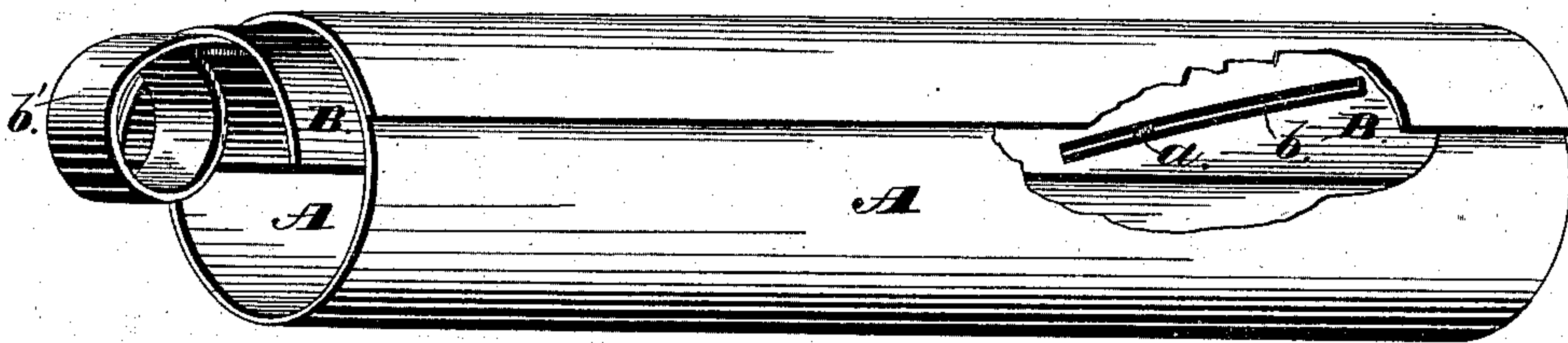


Fig. 2.

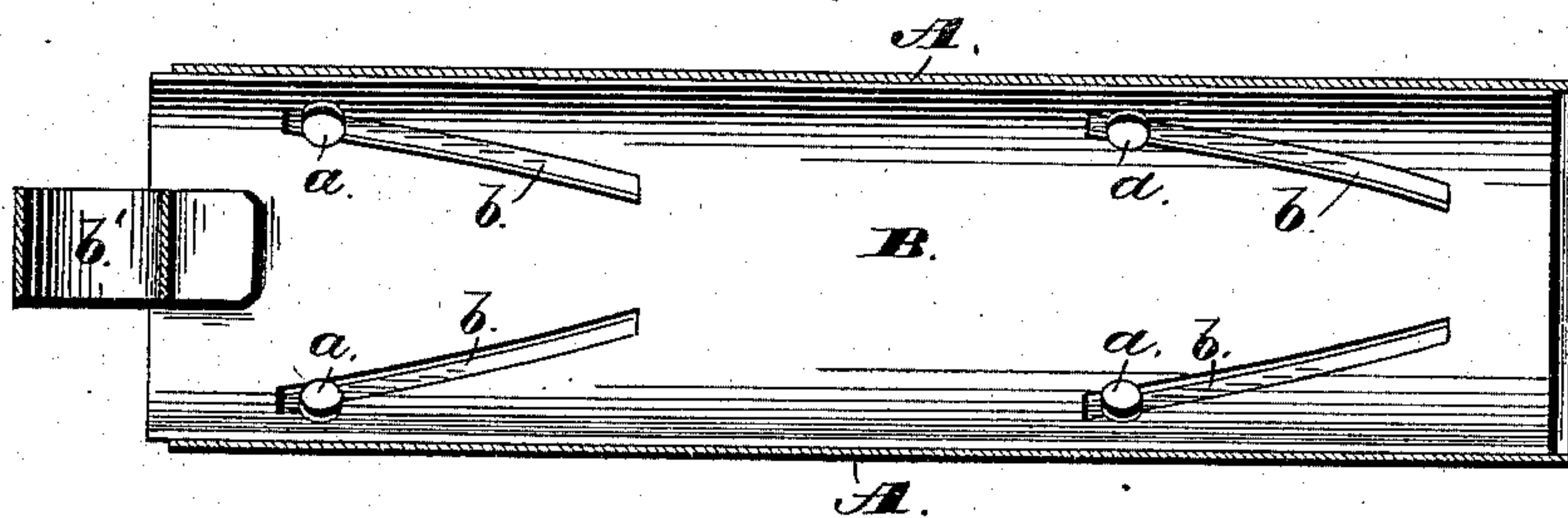


Fig. 3.

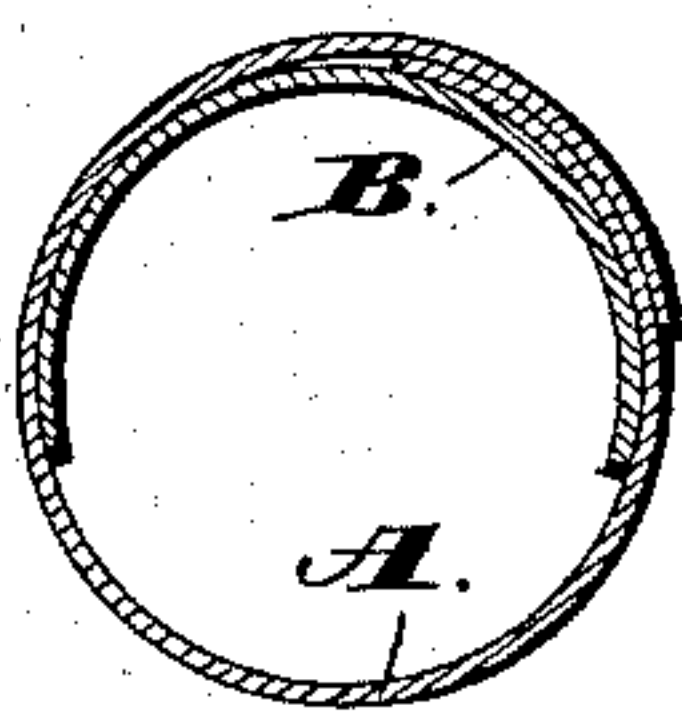
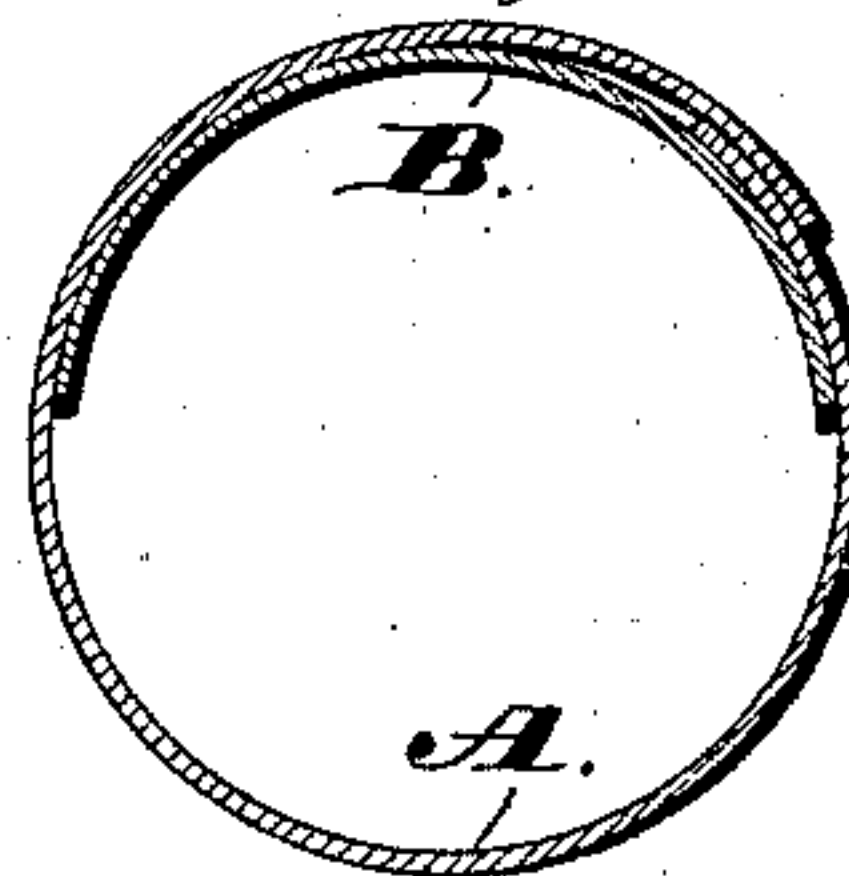


Fig. 4.



Witnesses:

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Geo. S. Prindle, their Atty

UNITED STATES PATENT OFFICE.

WILLIAM H. HOOPES AND GEORGE PAIST, OF BALTIMORE, MARYLAND.

CONTRACTIBLE CORE OR CENTER.

SPECIFICATION forming part of Letters Patent No. 278,551, dated May 29, 1883.

Application filed December 19, 1882. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. HOOPES and GEORGE PAIST, of Baltimore, in the county of Baltimore, and in the State of Maryland, have invented certain new and useful Improvements in Contractible Cores or Centers; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our improved core, having a portion of its wall broken away to show its interior construction. Fig. 2 is a central longitudinal section of the same; and Figs. 3 and 4 are cross-sections, and show, respectively, said core partly and entirely expanded.

Letters of like name and kind refer to like parts in each of the figures.

The design of our invention is to enable cylindrical openings for sewers, tunnels, fire-proofing, &c., to be easily and perfectly formed in plastic material or brick; and to this end said invention consists in the construction of the contractible core, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A represents the shell or body of our core, constructed from a sheet of metal which is coiled into the form of a cylinder, and has its edges lapped. Within said cylinder is placed a plate of sheet metal, B, which corresponds therewith in length, and has a breadth preferably equal to one-half its circumferential dimensions, and transversely conforms to the curvature of said cylinder. The plate B is provided at different points along its length with pairs of slots *b*, which extend from near its edges diagonally toward its center, and engage each with a stud or pin, *a*, that projects radially inward from the plate A, and is provided upon its inner end with a head that prevents withdrawal from its slot. The plate B is placed over the lapped edges of the plate A, and one-half of the studs *a* are secured within the latter near each edge, so that if said plate B is moved longitudinally over or with reference to said studs the result will be the expansion or contraction of the shell by the decreasing or increasing of the amount of lap of its said edges.

A handle, *b'*, is attached to one end of said plate for the purpose of enabling the same to be easily moved, and is preferably placed at the end, which must be drawn outward in order to contract the shell.

In use the device is expanded to the desired size and placed in position, and the brick laid in the usual manner, or the plastic material run or traveled around its exterior and permitted to set, after which the inner plate is moved lengthwise until the shell is sufficiently contracted to be easily withdrawn. In constructing a sewer or other opening having greater length than said core, the latter is but partially withdrawn each time, its inner end being allowed to project a short distance within the completed opening in order to secure a smooth interior and to avoid crookedness.

This device can be safely employed for the production of several diameters of opening within the same piece of work, or for making a tapering opening, and in consequence of the large difference obtainable between its maximum and its minimum diameters will supply the place of several cores of other construction. In consequence of the lapping of the casing, no material can enter the interior during use, and however closely said core may be built around, it can be instantly freed by an outward pull upon the contracting plate.

We are aware that cores constructed from sheet metal and adapted to be expanded and contracted circumferentially have before been used, and therefore do not claim the same, broadly.

Having thus fully set forth the nature and merits of our invention, what we claim as new is—

The hereinbefore-described core, consisting of the shell A, provided with studs *a* and having its edges overlapped, in combination with the plate B, having the converging slots *b*, substantially as and for the purpose specified.

In testimony that we claim the foregoing we have hereunto set our hands this 27th day of November, 1882.

WILLIAM H. HOOPES.
GEORGE PAIST.

Witnesses:

HEINRICH C. TIECK,
FREDERICK C. DREYER.