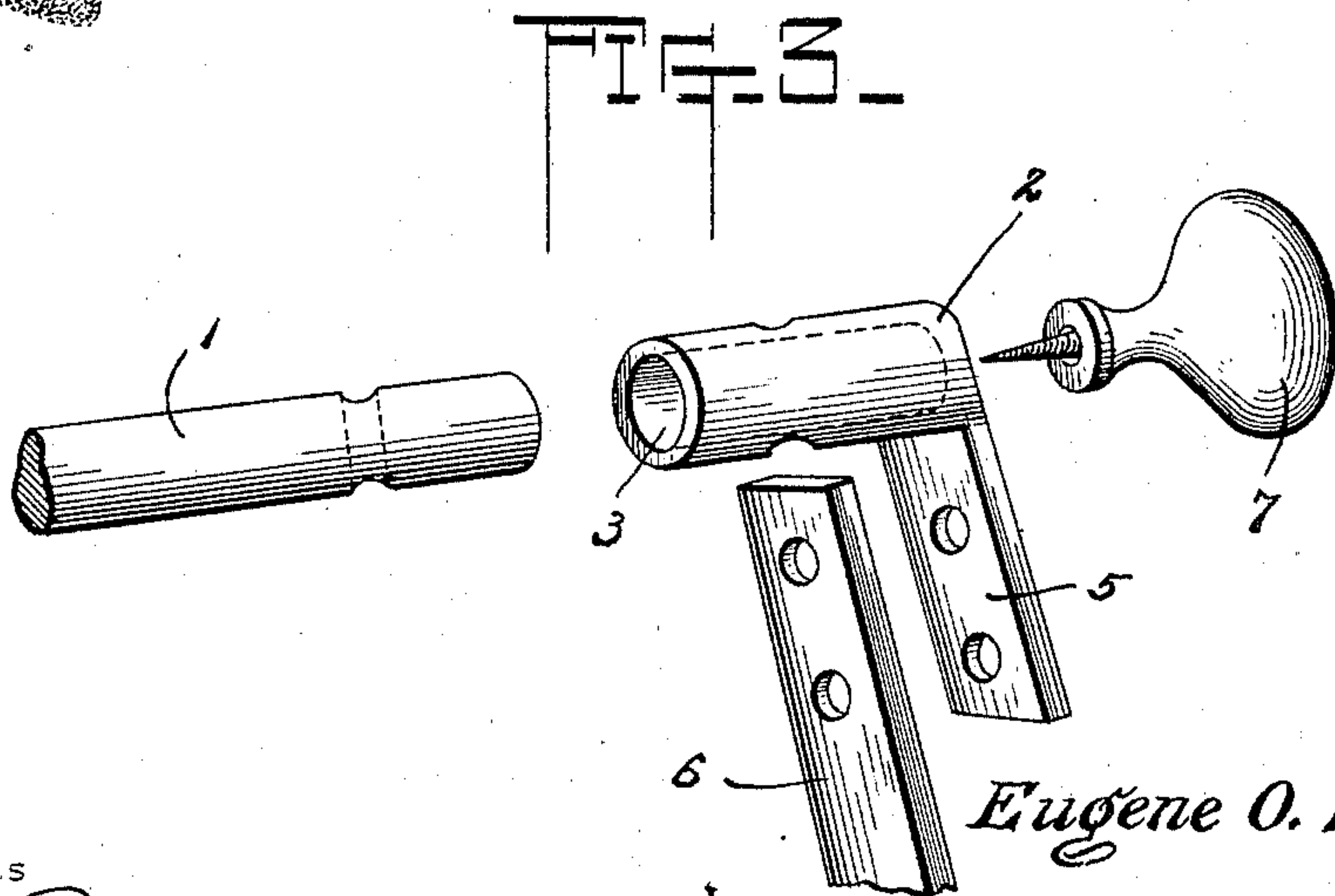
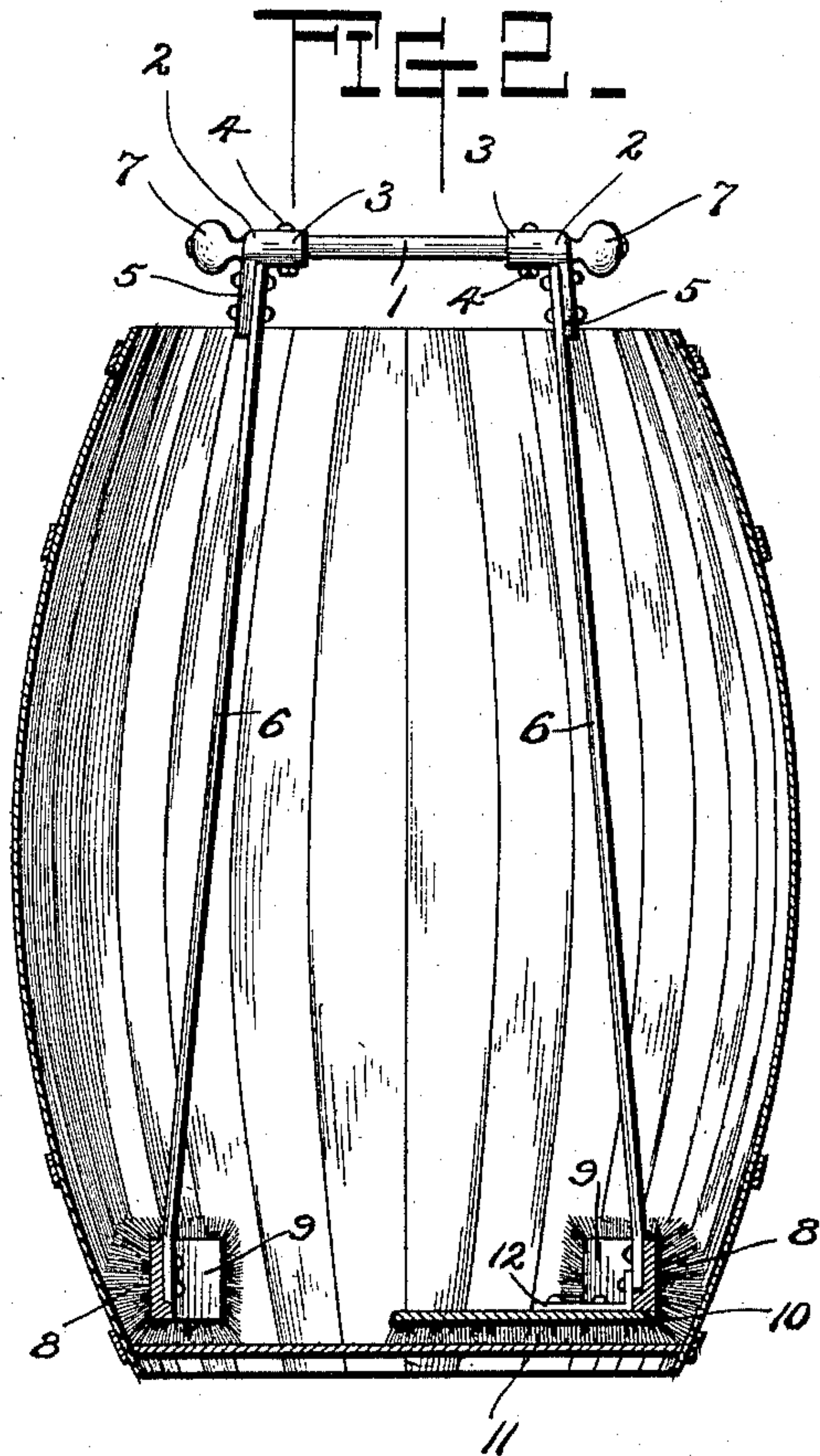
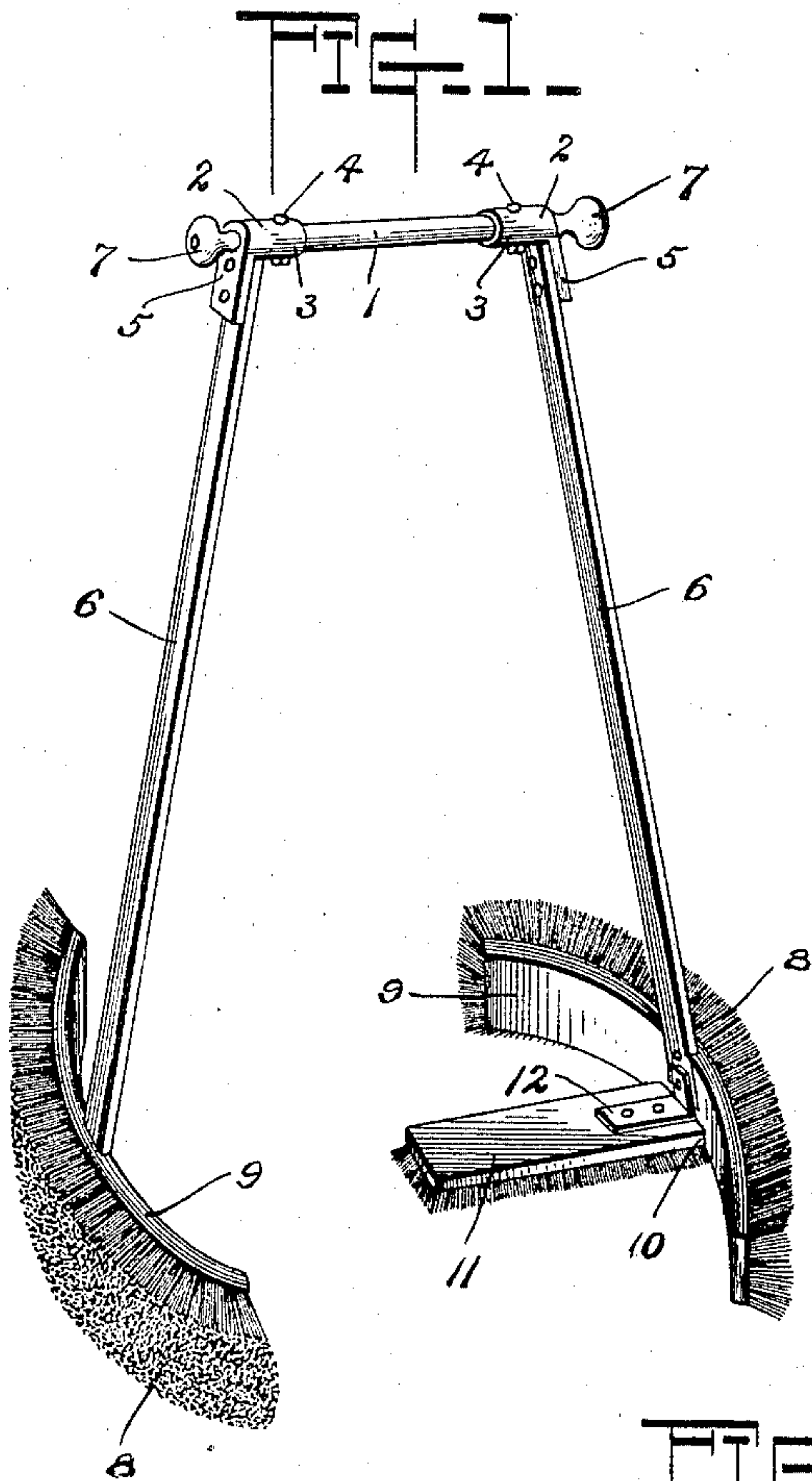


(No Model.)

E. O. FRENCH.
BARREL CLEANER.

No. 585,841.

Patented July 6, 1897.



Witnesses

A. M. Poynter.
R. M. Smith.

By *his* Attorneys.

Inventor
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EUGENE O. FRENCH, OF NORTH NORWAY, MAINE.

BARREL-CLEANER.

SPECIFICATION forming part of Letters Patent No. 585,841, dated July 6, 1897.

Application filed September 19, 1896. Serial No. 606,418. (No model.)

To all whom it may concern:

Be it known that I, EUGENE O. FRENCH, a citizen of the United States, residing at North Norway, in the county of Oxford and State of Maine, have invented a new and useful Barrel-Cleaner, of which the following is a specification.

This invention relates to barrel-cleaners, and has for its object to provide a simple and efficient article of the character designated which will automatically adjust itself to the varying internal diameter of a barrel and which when turned or reciprocated within the barrel will reach every point of the inner surface thereof, including the bottom, and remove any flour, dust, dirt, or other foreign matter therefrom preparatory to the refilling of the barrel.

With this general object in view the invention consists in an improved barrel-cleaner embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a barrel-cleaner constructed in accordance with the present invention. Fig. 2 is a vertical section through a barrel, showing the improved device in operation. Fig. 3 is a detail perspective view of one of the elbows.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates the main operating-bar of the cleaner, to the opposite ends of which are secured elbows 2. Each of said elbows comprises a horizontal tubular portion 3, into which one end of the bar 1 is fitted and secured by means of a through-pin or rivet 4 and a depending ear portion 5, set at a slightly-obtuse angle to the tubular portion 4, to which one of a pair of spring-arms 6 is firmly secured by means of rivets or other suitable fasteners. At each end of the bar 1 is a knob or handle 7, the same being secured to the elbow 2 by means of a pin or bolt passing axially through such knob or handle into the elbow, the handle being revolubly mounted thereon.

The spring-arms 6 are given a downward divergence, and to the lower ends of said arms

are rigidly attached segmental brushes 8, corresponding in curvature to the internal diameter or contour of the barrel. These brushes may be constructed in any approved manner, the bristles being secured to heads 9, preferably formed of wood and made flexible, so that they may yield or flex slightly to adapt themselves to the internal curvature of the barrel. The brushes 8 are about equal to or slightly in excess of a quarter of a circle, so that it is only necessary to turn the operating-bar a quarter of the way around to reach every point of the inner surface of the barrel.

One of the brushes 8 and the head 9 thereof are provided about centrally of their lower edges with a recess 10, into which fits the outer end of a radially-disposed brush 11, which extends inward to the center of the barrel and is connected near its outer end to the head 9 by means of an L-shaped knee 12, one arm of which is secured to the head 9 and the other arm to the back of the brush 11.

In operation the spring-arms 6 are compressed or moved together at their lower ends until the brushes 8 are brought sufficiently close together to enable the device to be inserted into the open end of a barrel. The spring-arms are then released and by their own elasticity force the brushes 8 outward or apart and into close contact and engagement with the inner surface of the barrel. By now rotating the operating-bar 1 with the aid of the handles 7 and at the same time gradually moving the device up or down the inner surface of the barrel will be thoroughly scoured, and upon reaching the bottom of the barrel the radial brush 11 may be used to cleanse the bottom by giving one or more complete revolutions to the operating-bar. The sides of the barrel may also be scoured by reciprocating the brushes 8 in vertical paths and at the same time gradually turning the device around in a circle.

The barrel-cleaner above described is very simple and cheap in construction, and will be found efficient and reliable in practice, as the brushes readily accommodate themselves to the inner contour of the barrel and reach every point of the inner surface thereof.

It will be understood that the device is susceptible of changes in the form, proportion, and minor details of construction, which may

accordingly be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. A hand-operated revoluble barrel-cleaner, comprising spaced spring-arms, a brush rigidly secured to the lower end of each arm, an operating-handle extending transversely between the upper ends of the spring-arms, and elbows each having a horizontal arm secured to one end of the handle and a downwardly and outwardly extending arm connected to the upper end of one of the spring-arms, substantially as described.

2. The combination with an operating-bar, of elbows rigidly attached to the opposite ends thereof, knobs or handles arranged at the ends of said bars and connected to said elbows, diverging spring-arms rigidly secured to said elbows, and segmental brushes attached to the free ends of said arms, substantially as described.

3. The combination with an operating-bar, of diverging spring-arms connected thereto, segmental brushes secured to the free ends of said arms, and a radially-disposed bottom brush having its outer end secured to one of said segmental brushes, substantially in the manner and for the purpose described.

4. The herein-described barrel-cleaner, comprising spaced elbows each having a tubular portion and an angular ear, an operating-bar having its opposite ends fitted in the

said tubular portions, diverging spring-arms rigidly connected to said ears, and segmental brushes attached to the free ends of said arms, substantially as described.

5. In a barrel-cleaner, the combination with a pair of spaced elbows each having a tubular portion and an angular ear, of an operating-bar having its opposite ends mounted fixedly in said tubular portions, revoluble knobs or handles arranged at the ends of said bar and outside of said elbows, diverging spring-arms secured to said ears, and segmental brushes attached to the free ends of said arms; substantially as described.

6. In a barrel-cleaner, the combination with an operating-bar, of revoluble handles or knobs mounted at the ends thereof, diverging spring-arms secured rigidly to said operating-bar, segmental brushes attached to the free ends of said arms, one of said brushes being provided intermediate its ends and in its under side with a recess, a radially-disposed brush having one end arranged in said recess, and an L-shaped knee having its arms secured respectively to the segmental and radial brushes, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EUGENE O. FRENCH.

Witnesses:

HOWARD D. SMITH,
STELLA M. PIKE.