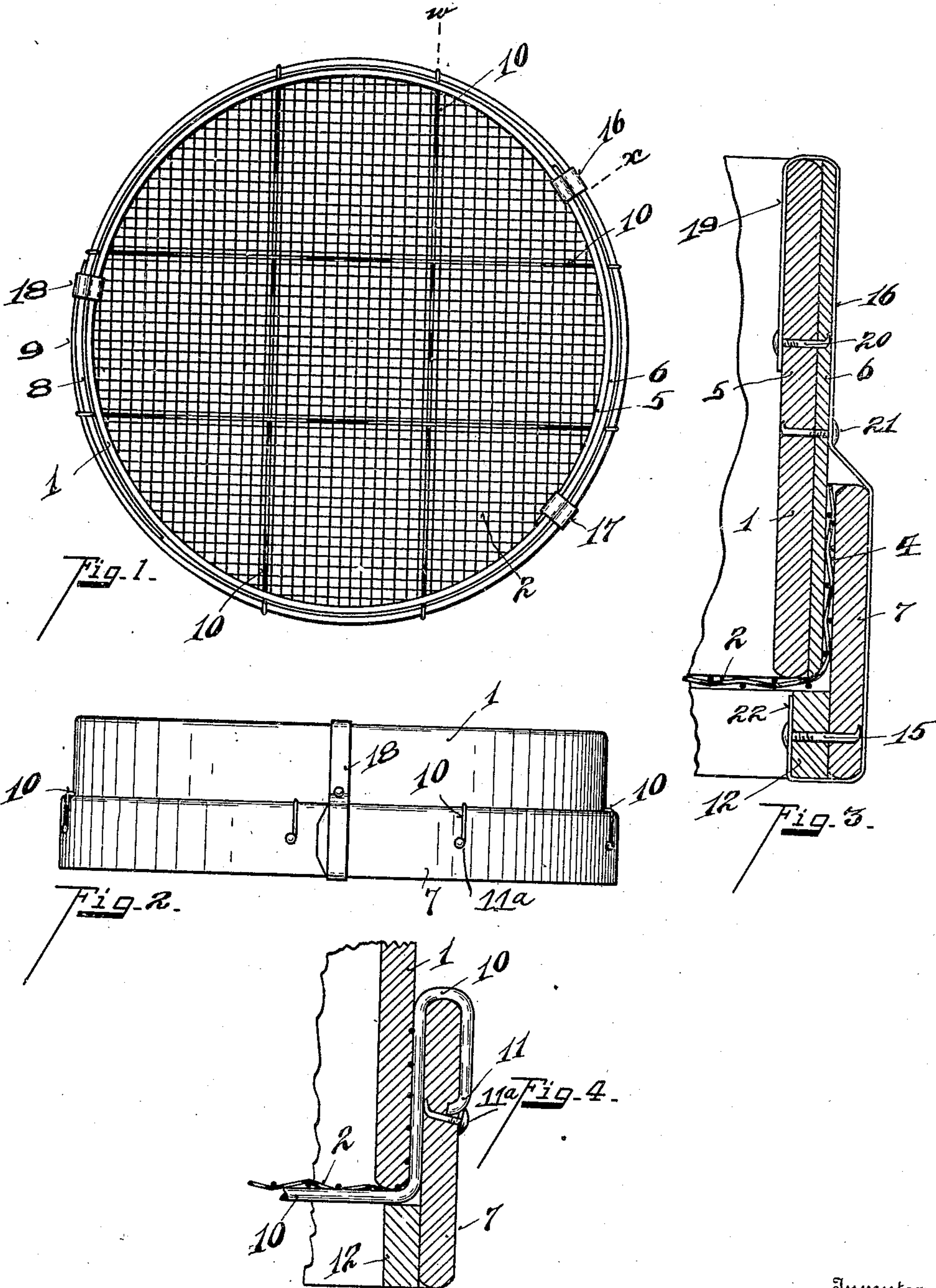


H. F. FROHMAN.
SIEVE.

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Inventor

Witnesses

Oliver B. Kaiser
Louis Beck

By

Harry F. Frohman

W. C. & W. M.

Attorneys

UNITED STATES PATENT OFFICE.

HARRY F. FROHMAN, OF CINCINNATI, OHIO.

SIEVE.

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To all whom it may concern:

Be it known that I, HARRY F. FROHMAN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sieves, of which the following is a specification.

My invention relates to an improvement in a sieve of the form primarily adapted to sifting molders' sand.

For such use it is desired to have the sieve light, but strong and durable. Said sieves have a cylindrical body made of wood for lightness and the usual meshes.

The object of my invention is to preserve the lightness and increase the strength of the wooden body.

The features of my invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which:—

Figure 1 is a bottom plan view of my sieve. Fig. 2 is a side elevation thereof. Fig. 3 is a section of the body on line *x*, Fig. 1. Fig. 4 is a section of the body on line *w*, Fig. 1, showing one of the supporting wires in elevation.

The body of the sieve is made of two hoop sections. 1 represents the top or inner section across the base of which is stretched the usual screen wire 2. This screen wire is turned upward around the outside thereof forming a screen flange 4, as shown in Figs. 3 and 4. The said hoop 1 is bent in circular form having the overlapping ends 5, 6, shown in Fig. 3. The bottom hoop or rim 7 is likewise made of thin material, 8, 9, represent the ends of the same which are tapered and overlap to form the joint, as shown in Fig. 1.

The screen is made in the usual manner, but I have provided a series of supporting wires 10 crossing each other at right angles as shown in Fig. 1 and extending upward between the upper and lower rims or hoops, the ends of which are bent over and firmly anchored to said former rim, as shown at 11 in Fig. 4.

11^a represent nails driven into the base rim 7 adjacent to the anchored ends of the wires 10 and clenched by contacting against the upwardly extended portion of the wires between the upper and base hoops, see Figs. 2 and 4.

To further support the screen I provide

an inside supporting hoop 12, with ends overlapping each other as rims 1 and 7.

15 represents rivets or nails for attaching the inside hoop to the base rim 7.

As the sieves are subjected to great strain and usually employed to screen damp material the wooden body is subjected to great strains by the swelling and expansion action of the moisture which is apt to tear loose ordinary fastenings, and render the life of the sieve comparatively short. To further strengthen the body of the sieve and prevent such expansion from tearing apart the joints I provide a series of sustaining straps 16, 17 and 18, said straps are arranged and applied as follows: Strap 16 is bent over the top of the rim 1 forming a limb 19, which extends down upon the inside of the sieve and is secured thereto by a clench nail 20. 21 represents a clench nail securing the said clamp to the central portion of the upper section 1. Said strap is extended down, bent around the base 7 of the sieve, and with a limb 22 turned upon the inside and secured by a clench nail 15 to the hoop 12 and base rim 7. Straps 17 and 18 are secured in a similar manner over the overlapping ends as shown. It will be noticed that the free ends of all of the flaps are firmly supported and united together to constitute a whole body by the said straps 16, 17 and 18. I have found by experience that the above described screen is very light, strong and durable. These straps limit the extent of the breakage of the body portion of the sieve, which without them would split the rim its entire circumference.

Having described my invention, I claim:—

A sieve composed of three hoop sections comprising body, base and strengthening hoops, a screen secured between the body and base hoops, in combination with a series of wires spanned beneath the screen with their ends extended upwardly between the body and base hoops, outwardly and downwardly over the base hoop and terminating inwardly into the base hoop, and means for retaining the ends of the wires in position, substantially as described.

In testimony whereof, I have hereunto set my hand.

HARRY F. FROHMAN.

Witnesses:

OLIVER B. KAISER,
LUISE BECK.