

W. W. WORCESTER.

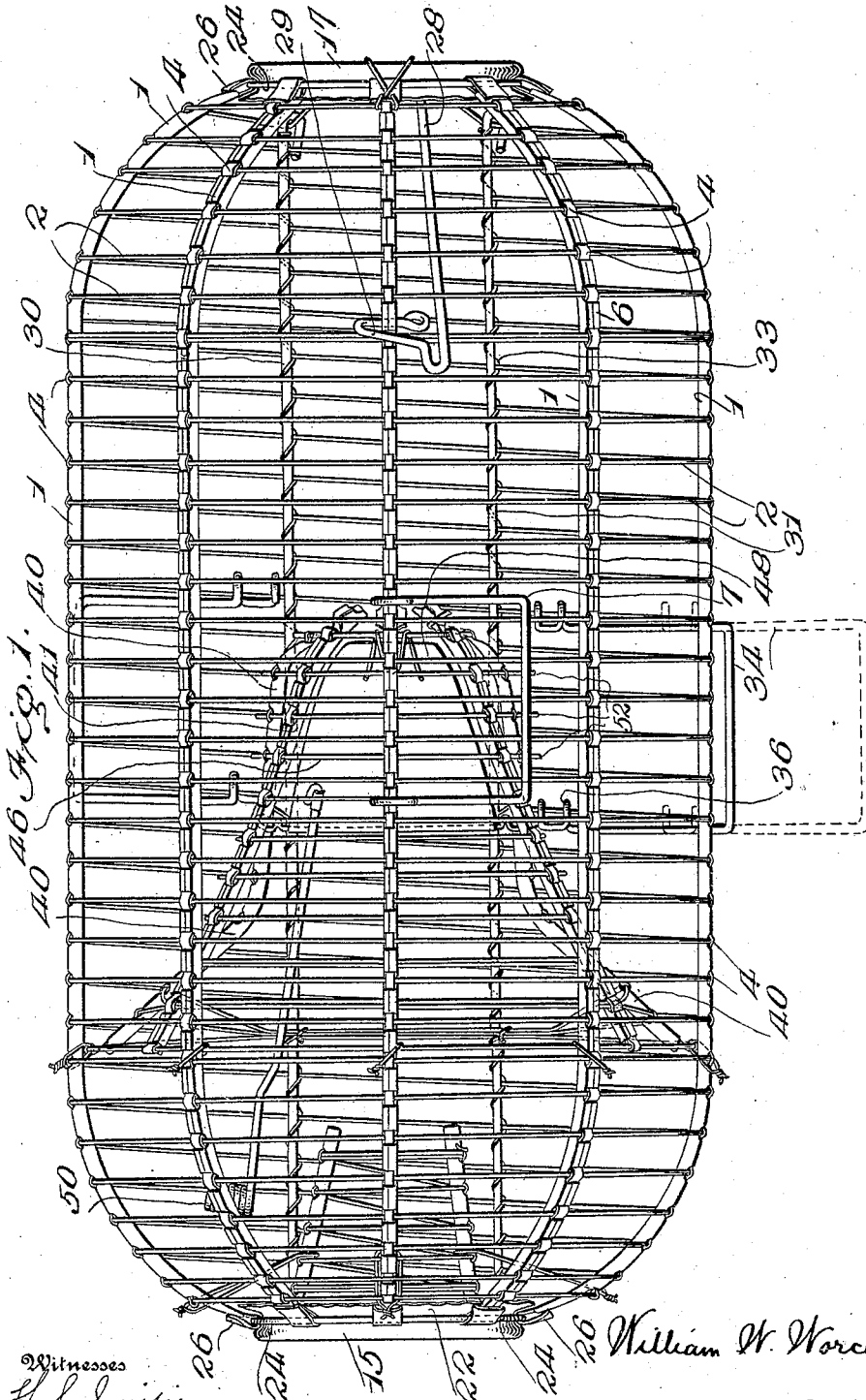
TRAP.

APPLICATION FILED APR. 28, 1908.

Patented Nov. 23, 1909.

3 SHEETS—SHEET 1.

940,911.



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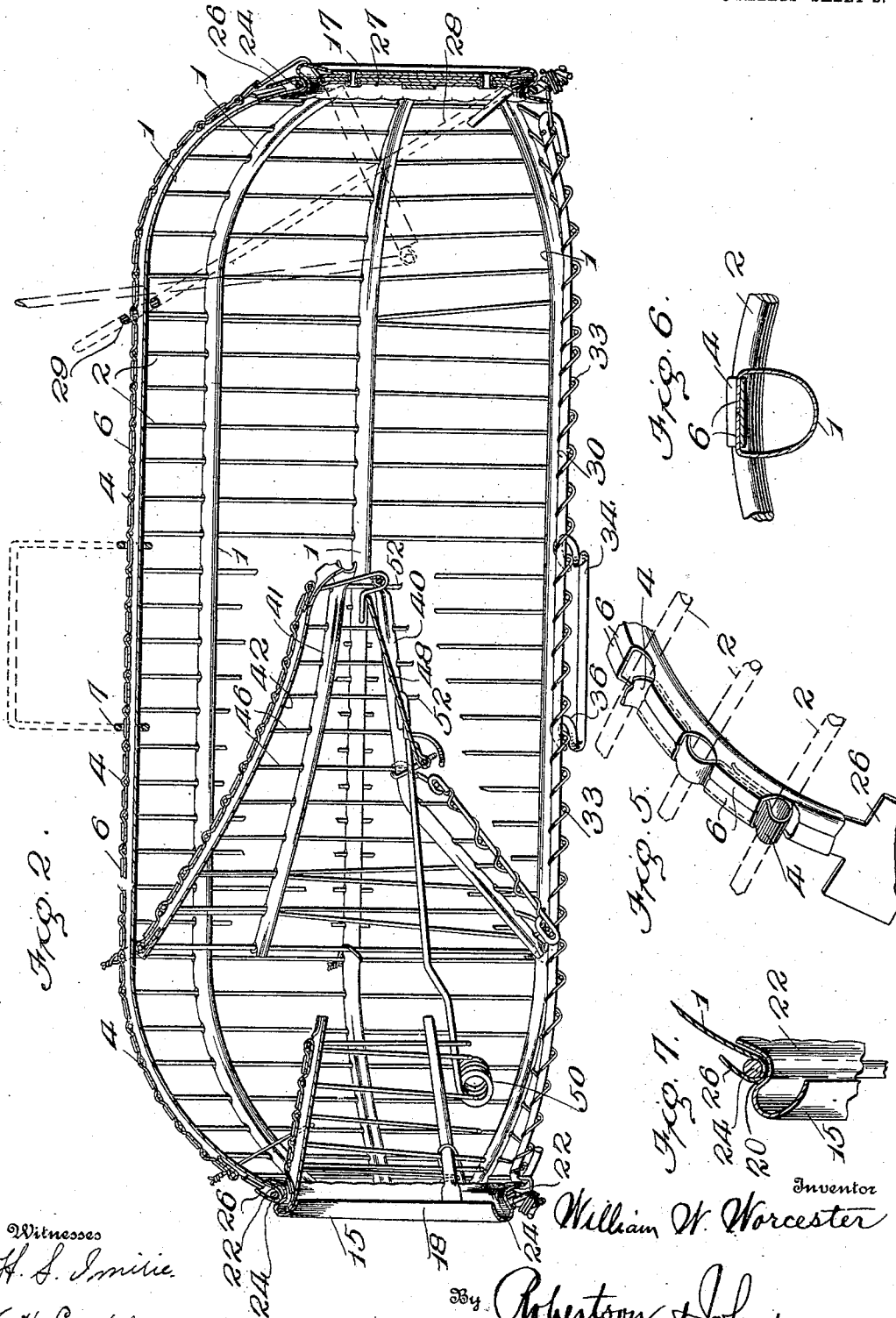
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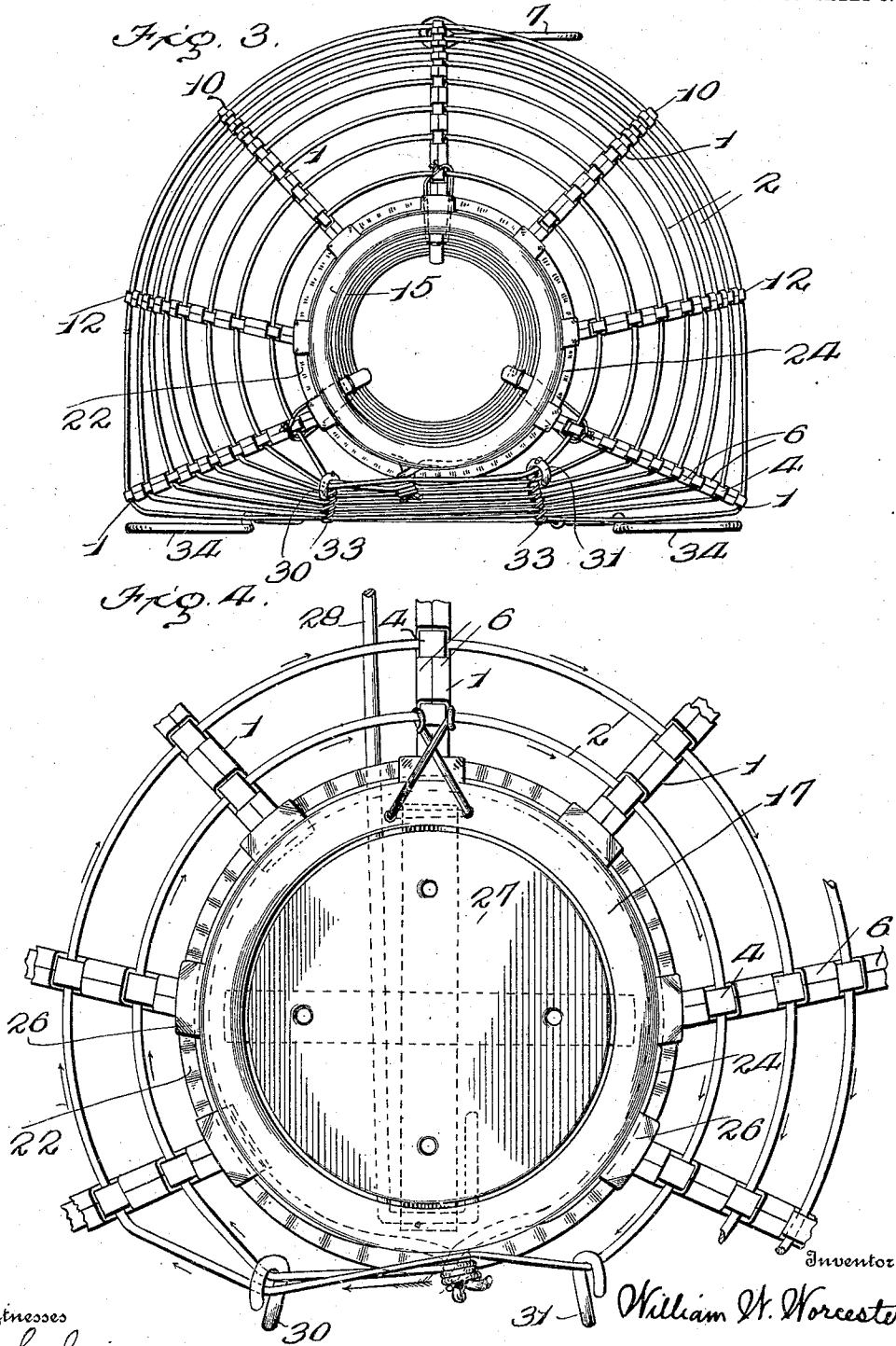
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UNITED STATES PATENT OFFICE.

WILLIAM W. WORCESTER, OF CANTON, OHIO.

TRAP.

940,911.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed April 28, 1908. Serial No. 429,653.

To all whom it may concern:

Be it known that I, WILLIAM W. WORCESTER, a citizen of the United States, and a resident of Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Traps, of which the following is a specification.

My invention relates to improvements in traps of the character illustrated in the drawing of my application, Ser. No. 370,511, filed April 26, 1907, and the object of this invention is to produce a trap that can be made entirely of sheet metal and wire and at the same time possess great strength and rigidity for the weight of the metal used.

My trap, in its preferable embodiment, comprises a number of sheet metal bars or stays which are connected to flanged rings at the entrance and at the discharge end of the trap, the said bars or stays supporting and holding in position the wire forming the main part of the trap. Another novel feature is the construction of the rings at the ends of the trap and also the door or closure, as well as other details which will be hereinafter referred to.

My invention therefore consists of the trap as shown in its preferable embodiment in the accompanying drawings and as will be more clearly described and claimed at the end hereof.

Figure 1 is a top plan of a trap constructed in accordance with my invention. Fig. 2 is a vertical central section. Fig. 3 is an end view from the front of the trap. Fig. 4 is an end view from the back of the trap. Figs. 5, 6 and 7 are details to be more fully described hereinafter.

Referring now to the construction by numerals: 1 designates a series of bars or stays which are made as illustrated and described in my aforesaid application No. 370,511. As there disclosed this stay or bar comprises a substantially U-shaped piece of metal having recesses in its side flanges, through which recesses, wires 2 are passed and over said wires are passed strips or ribbons 4, and the parts 6 of the side flanges of the U-shaped bar between the recesses are bent over the flat strip or ribbon, thereby clenching the wires between the flat strip or ribbon and the side flanges of the U-shaped bar.

As illustrated in Fig. 3 my trap comprises two of these bars or stays 1 at opposite sides

of the bottom of the trap, a similar bar or stay 7 at the top of the trap and two bars or stays 10 and 12 between the top and bottom bar on each side of the trap, thus making seven bars or stays in all. It will be noticed that these bars or stays are straight for the major portion of their length and then each end of each bar or stay is curved so that the ends of the bars will all point toward a common center as clearly illustrated in the drawings. Instead of bringing the bars or stays to one common point, they stop a short distance from what would be their meeting point and their ends are connected to rings 15 and 17 at opposite ends of the trap, one of the rings 15 forming the entrance and the other ring 17 forming the exit at the opposite end of the trap. The ring 15 at the entrance of the trap is as clearly shown in the drawings, formed of sheet metal and has a rounded inwardly projecting member 18 which provides an entrance which is smooth and without any rough edges. The metal forming the ring is then formed with an annular groove and then after being bent backward from the ring proper it is formed with a flange designated by the numeral 22. The groove is for the purpose of receiving a wire 24 under which is passed the end 26 of each stay or bar and affords the means of connecting the seven stays or bars to the ring. The ring 17 at the closure end of the trap is formed in substantially the same way except that instead of having the metal formed into the rounded inwardly projecting portion 18, it is substantially flat so as to provide means for permitting the door to close against and within the ring. But the seven bars or stays are connected to the rear ring or closure exactly the same as at the front end or the entrance of the trap.

The rear end is provided with a door 27 preferably formed of sheet metal and hinged at the top of the ring as clearly seen in Fig. 2. Thus the door may be lifted upwardly as clearly indicated in the drawing and in order to make this possible from the outside of the trap, I provide a handle 28 which is pivoted to the lower end of the door and the other end of this handle is formed into a spring catch 29 which coacts with the central stay or bar and locks the door closed as clearly indicated in Fig. 1. The wire which forms the main portion of the trap is

formed of one single piece, is wrapped around all the stays or bars and is secured thereto by the flat strips or ribbons as hereinbefore described and the last coil of this wire is secured in position by having the ends of the flat strips or ribbons passed around it and then doubled upon itself as clearly seen in Fig. 5. To make the bottom of the trap more rigid and secure, I pass a couple of heavy wires 30 and 31 along the inside of the trap and connect them to each coil of the continuous wire by wrapping wires 33 as clearly seen in Fig. 2.

In order to make the trap so that it can not be easily rolled by the rats, I provide two extensions 34 which are preferably connected at the bottoms and comprise two frames substantially U-shaped, the stems of the U having two loops 36 which fit around two coils of the wire and permit the extensions to be pulled out or moved in, in a manner easily understood.

The partition between the two parts of the trap comprises two stays or bars 40 connected to the two bottom stays or bars of the trap at its ends and bent in the shape shown in the drawings, and to the U-shape part of this frame I connect three stays or bars 41, 42 and 43 which are connected to the trap proper as indicated in the drawings and around these stays or loops is wrapped a wire frame 46 which is secured in position in exactly the same way that the wires are secured to the main stays or bars. There is however an opening left in this frame 46, at the U-shaped part of the stays or bars 40, through which the rat may enter and this opening is closed by a trap door 48 pivotally held in position and provided with a wire weight 50 to hold it in the closed position and yet permit of the trap door being opened by the passing of a rat and automatically closed as the rat passes into the trap proper. It will be noticed that the wires which close the ends of this partition instead of being bent around the frame of the partition, under the trap door 48, are bent downwardly and left exposed as shown at 52 so that any attempt on the part of the rat to open this trap door after he is caught will be prevented by the objectionable points of these wires making it unpleasant to make any such attempt successful. I consider this an important feature.

From the foregoing and the accompanying drawing it will be seen that I have produced a trap which, though made of sheet metal, is exceedingly strong and yet it possesses all the features necessary in an ideal trap and at the same time can be made sufficiently cheap so as to come within the price at which it is necessary to make a successful trap.

It is obvious that changes and modifications may be made and I do not limit my

invention to the exact form illustrated, but refer to my claims in order to determine the scope of my invention.

What I claim as my invention is:—

1. A rigid frame-work comprising a series of rigid sheet metal stay-bars, sheet metal rings at opposite ends of said rigid bars having annular grooves therein, wires securing the ends of the rigid sheet metal bars in the grooves of said rings, the whole forming a unitary rigid frame-work, and a covering of wire wrapped around said frame-work, said wire being secured to each of the stay-bars composing said frame-work.

2. A rigid frame-work comprising a series of rigid sheet metal stay-bars having their ends bent to point substantially at a common center, rings at opposite ends of said rigid bars, the sheet metal ends of said bars being secured to said rings and a covering consisting of a single wire wrapped around said rigid sheet metal frame-work, each convolution of the wire being secured to said frame-work.

3. A rigid frame-work comprising a series of rigid stay-bars and rings secured to the ends thereof, said bars having recesses or notches therein, and a covering comprising wire secured in said recesses or notches.

4. A rigid frame-work comprising a series of rigid stay-bars having their ends bent to point substantially at a common center, rings at opposite ends of said rigid bars, the ends of said bars being secured to said rings, said bars having recesses or notches therein, and a covering consisting of wire secured in said recesses or notches.

5. A rigid frame-work comprising a series of rigid sheet metal stay-bars having their ends bent to point substantially at a common center, rings at opposite ends of said rigid sheet metal bars, the sheet metal ends of said bars being secured to said rings, said sheet metal bars having recesses or notches therein, and a covering consisting of a single wire wrapped around said rigid frame-work, said wire being located in said recesses or notches and each convolution of the wire being secured to said stay-bars.

6. A rigid frame-work comprising a series of stay-bars and rings at opposite ends of said stay-bars, said bars being substantially U-shape in cross-section and having their ends secured to said rings and a covering consisting of wire secured to the flanges of said U-shaped stay-bars.

7. A rigid frame-work comprising a series of rigid stay-bars, rings at opposite ends of said rigid bars, said bars being substantially U-shape in cross-section and having their ends bent to point substantially at a common center, the ends of said U-shaped bars being bent upon themselves, and a wire securing said bent ends to said rings.

8. A rigid frame-work comprising a series

of rigid stay-bars, rings at opposite ends of said rigid bars, said bars being substantially U-shape in cross-section and having their ends bent to point substantially at a common center, the ends of said U-shaped bars being flattened and bent upon themselves, a wire securing said flattened bent ends to said rings, and a covering consisting of wire secured to said U-shaped stay-bars.

9. A rigid frame-work comprising a series of stay-bars, rings at opposite ends of said stay-bars having grooves therein, said bars being substantially U-shaped in cross-section and having flattened ends located in the grooves in said rings, and wires also located in said grooves and securing the flattened ends of the bars therein.

10. A rigid frame-work comprising a series of stay-bars, rings at opposite ends of said stay-bars having grooves therein, said bars being substantially U-shape in cross-section and having flattened ends located in the grooves in said rings, wires also located in said grooves and securing the flattened ends of the bars therein and a covering comprising wire secured to the flanges of said U-shaped stay-bars.

11. A rigid frame-work comprising a series of stay-bars, rings at opposite ends of said stay-bars having grooves therein, said bars being substantially U-shape in cross-section and having their ends located in the grooves in said rings, wires also located in said grooves and securing the ends of the bars therein and a covering comprising a single wire wound around said stay-bars, each convolution of the wire being secured to said stay-bars.

12. In a trap, a head comprising a ring formed of one piece of sheet metal and hav-

ing an annular groove, a frame-work comprising stay-bars, and a wire in said groove securing the ends of said stay-bars to said ring, the inside edge of said ring being bent inwardly to form a smooth entrance.

13. In a trap, a ring having an integral flanged end, and a door pivoted thereto and arranged to close against the flange of said ring.

14. In a trap, a head comprising a ring having a flange, a stay-bar, a door closing from the inside and pivoted to said ring, and a handle connected with said door and co-acting with said stay-bar and thereby locking the door shut.

15. In a trap, a closure for the end of the trap comprising a door hinged at the upper portion thereof and opening inwardly, a stay-bar, and a handle projecting from said door and arranged to close from the outside of the trap as the door opens, said handle co-acting with said stay or bar and thereby locking the door shut.

16. In a trap, a substantially flat bottom, and a frame connected to said bottom and movable out to form an extension of the bottom.

17. In a trap, a substantially flat bottom, and a substantially U-shaped frame slidably connected with the bottom of the trap and movable to project outward therefrom, thus forming an extension bar to prevent the trap from being rolled over.

Signed by me at Canton, Ohio this 18th day of April 1908.

WILLIAM W. WORCESTER.

Witnesses:

J. P. FAWCETT,
ANNA M. CONRAD.