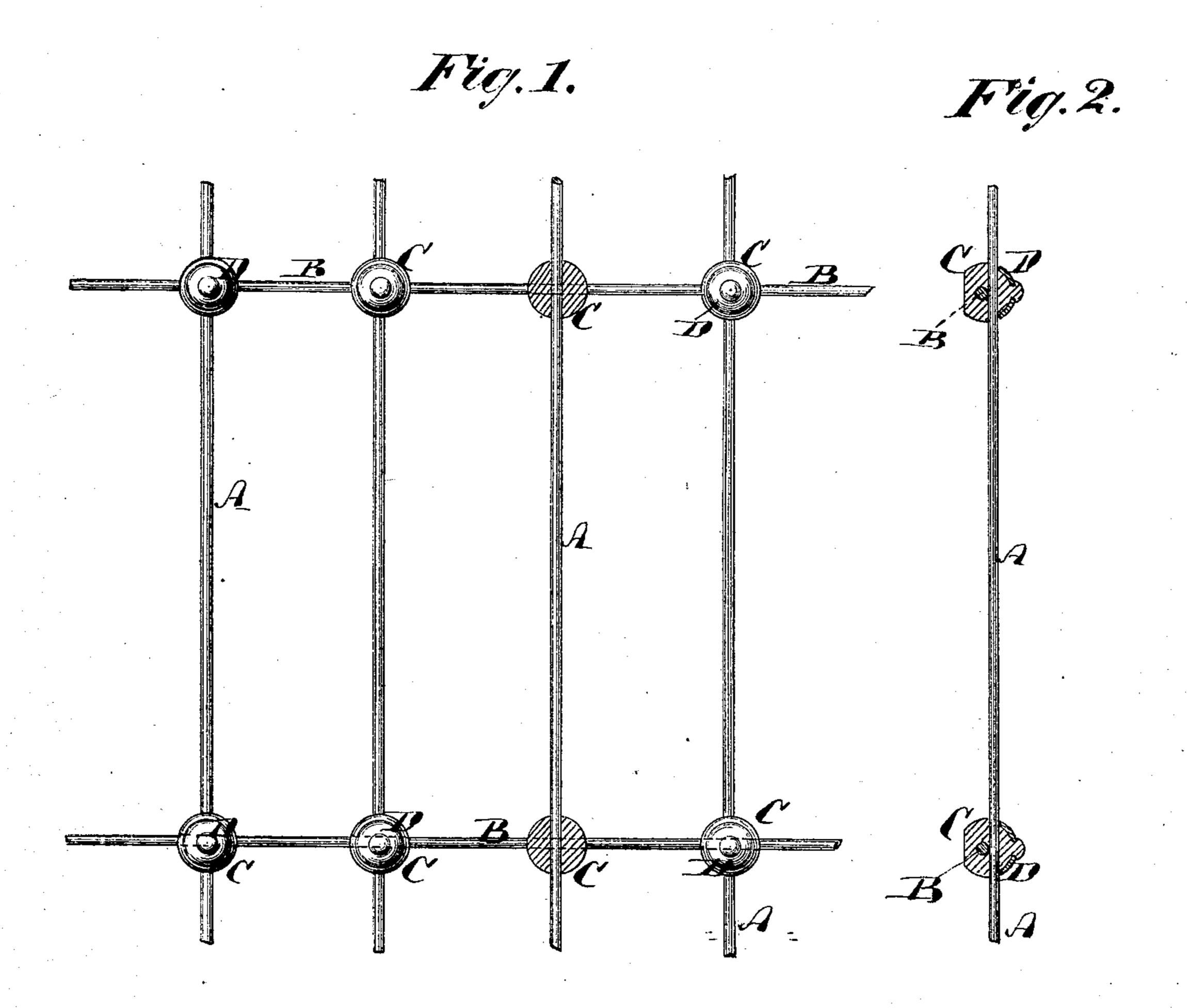
## J. MAXHEIMER. Bird Cages.

No. 145,886.

Patented Dec. 23, 1873.



Witnesses John Becker. Fred Haynes.

John Maxheimer byhis Astomaye Monntoller

## UNITED STATES PATENT OFFICE.

JOHN MAXHEIMER, OF NEW YORK, N. Y.

## IMPROVEMENT IN BIRD-CAGES.

Specification forming part of Letters Patent No. 145,886, dated December 23, 1873; application filed September 2, 1873.

To all whom it may concern:

Be it known that I, John Maxheimer, of the city, county, and State of New York, have invented an Improved Construction of Bird-Cage, of which the following is a specification:

This invention relates to a new manner of securing protecting-shields to the faces of softmetal beads that are used on the crossings of the wires of bird-cages. The invention consists in perforating said shields and extending projecting studs from the beads through these perforations, so that such studs will secure the shields in place. In this manner the shields can be attached during the process of casting the beads, and will be more firmly held thereon than could be done by fastening-pins that enter the beads or by any other means.

In the accompanying drawing, Figure 1 represents a face view, partly in section, of a portion of a cage for birds or other animals provided with my invention. Fig. 2 is a transverse section of the same

verse section of the same.

Similar letters of reference indicate corre-

sponding parts in both the figures.

The letters A A represent the filling-wires of a cage, which are crossed at right or other angles by transverse wires B B. At the intersection of each filling-wire A with transverse wire B, a button or bead, C, of lead or other soft metal, is cast around the wires, so as to connect them, which is clearly indicated in the drawing. The outer face of this bead C, where the same is exposed to view, is covered by a plate, D, of sheet metal. This plate has one or more perforations through it, as shown, and is attached to the bead in the follow-

ing manner: It is laid within the same mold in which the bead is to be cast. The material of the bead is then poured in the mold, so that part of it will pass through the perforation or perforations of the plate D and form, if desired, slight enlargements in front of such plate D, as shown in Fig. 2, thus producing a stud for securing the plate D to the bead. The fastening will, however, be almost as firm if the metal from the head is merely permitted to pass into the perforation or perforations of the plate, but not beyond the same.

The plate D may be of the annular form shown in Fig. 1, so that its perforation is in the center, or it may have a series of smaller apertures and be of other outline than circular, as may be desired, and to suit taste and

convenience.

The design shown in this invention, as far as the particular configuration of the beads and covering-plates is concerned, is the subject of an application for a design patent, made by me at the same time as this application.

I claim as my invention and desire to secure

by Letters Patent—

The combination of the cage-wires A and B with the cast-metal bead C and perforated sheet-metal plate D, the plate being connected with the bead by a projecting stud, which passes from the bead through the plate, substantially as herein shown and described.

JOHN MAXHEIMER.

Witnesses:

F. V. BRIESEN, MICHAEL RYAN.