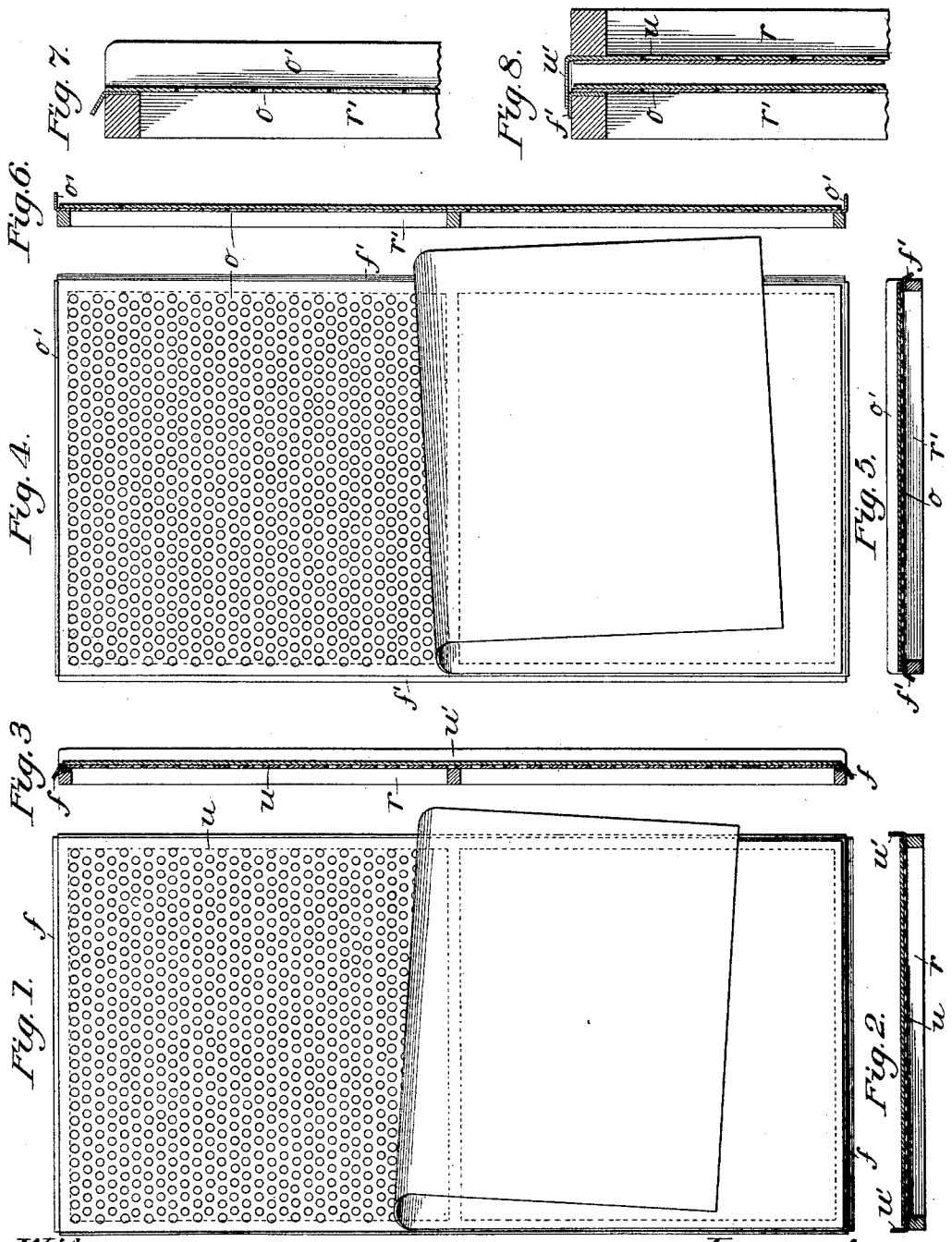
(No Model.)

W. VATER.

APPARATUS FOR DRYING MACARONI.

No. 586,642. Patented July 20, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

WILHELM VATER, OF MANNHEIM, GERMANY.

APPARATUS FOR DRYING MACARONI.

SPECIFICATION forming part of Letters Patent No. 586,642, dated July 20, 1897.

Application filed December 28, 1896. Serial No. 617,264. (No model.) Patented in England October 29, 1896, No. 24,137.

To all whom it may concern:

Be it known that I, WILHELM VATER, a subject of the Emperor of Germany, residing at Mannheim, in the Empire of Germany, have invented a new and useful Improvement in Apparatus for Drying Macaroni, (for which I have applied for a British patent to bear date October 29, 1896, No. 24,137,) of which the following is a specification.

The present invention has for its object an apparatus by means of which a number of disadvantages are to be obviated that are experienced with the process for drying macaroni now employed (and to some extent considered secret) and the apparatus therein used. These disadvantages are that the macaroni is apt to crack, warp, and to become moldy, and also to lose in taste and good light color.

A further advantage obtained with the new drying apparatus is that the goods can be put on straight, surely, and rapidly.

The apparatus represented in the accompanying drawings consists of a lower and an upper part. The former is shown in plan in Figure 1. In Fig. 2 it is shown in cross-section, and in Fig. 3 in longitudinal section. Figs. 4 to 6 show similar views of the upper part.

The lower part as well as the upper consists of a sheet of metal *u* and *o*, respectively, each fixed on a wooden frame *r* and *r'*, respectively, and provided with perforations placed close together. The two long sides of the lower part *u* and the two short sides of the upper part *o* are bent as shown at *u'* and *o'*, the bend in each case being toward the free side of the sheet of metal. The distance between the bent portions of the one part determines the dimensions of the other. Each of the two sheets is at its inner side lined with cardboard or strawboard of one millimeter to 1.5 millimeter thickness. Between the sheet of metal and the wooden frame a strip of flannel is provided at the short sides of the lower part *u*, as shown at *f*, and on the long sides of the upper part, as shown at *f'*, the strip of flannel projecting about eight millimeters, as shown in Fig. 7.

The macaroni to be dried is placed on the cardboard of the lower part of the bent portions *u'* serving to keep the pieces straight. When the lower part is completely covered with macaroni, the upper part is placed over it, cardboard side downward. The bent portions *u'* and *o'*, respectively, of the one part then take over the free edges of the other, as seen in Fig. 8. The flannel strips *f* and *f'* between the two parts prevent access of air to the macaroni from these points, while the cardboards between the metal sheets *u* and *o* and the macaroni prevent access of air in this direction.

The moisture contained in the macaroni put into the apparatus is absorbed by the cardboard, and thence, by evaporation, passes to the air playing around the apparatus through the perforations in the plates *u* and *o*.

Instead of the perforated sheets wire-gauze stretched on angle-iron frames may be used in the apparatus above described.

Having fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. An apparatus for drying macaroni without free access of air, which apparatus is characterized by two sheets of perforated metal or of wire-gauze *u* and *o* the inner surfaces of the sheets being lined with cardboard or strawboard, each having bent portions *u'* and *o'* respectively the one *u* on its long sides, the other *o* on its short sides so that the bent portions in conjunction with the packing-strips *f* and *f'* hermetically close the space between the plates or sheets, into which space the macaroni is placed, so that the drying of the macaroni proceeds with the exclusion of direct contact of air by absorption of the moisture into the cardboards or strawboards and evaporation from the surface of the latter.

2. An apparatus for drying macaroni, consisting of a sealed drying-chamber for containing the macaroni, having perforated walls for the escape of moisture, said walls being covered on their inner sides by air-tight but moisture-absorptive material, substantially as set forth.

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Witnesses:
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