Jan. 22, 1929.

1,699,693

C. P. EISENHAUER

METHOD OF FORMING SCREEN PLATE

Filed March 22, 1927

FIG.1

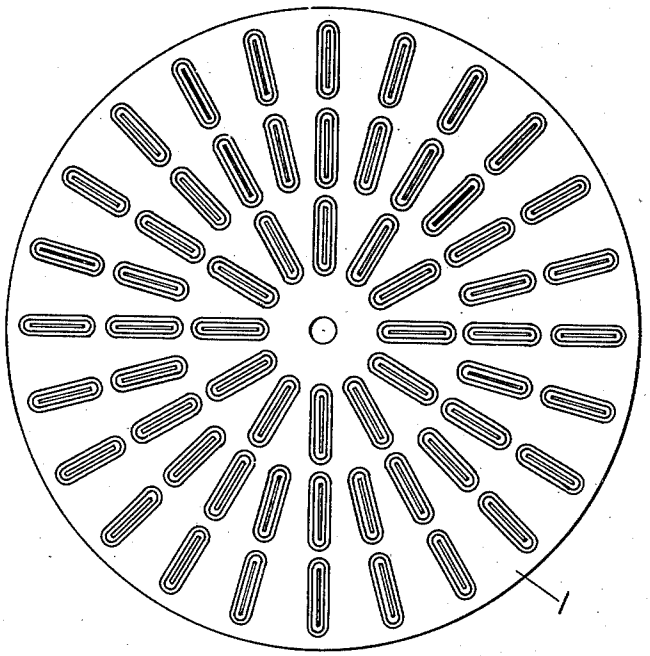


FIG.2

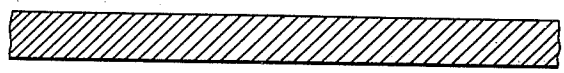


FIG.3

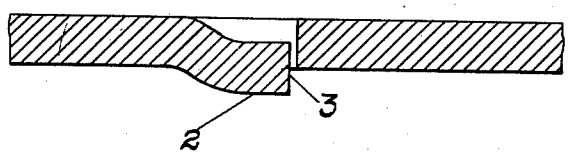
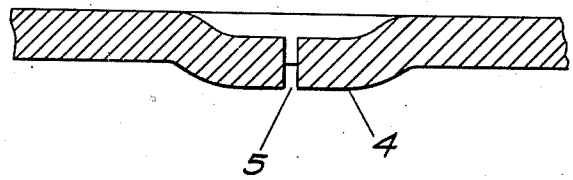


FIG.4



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UNITED STATES PATENT OFFICE.

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METHOD OF FORMING SCREEN PLATE.

Application filed March 22, 1927. Serial No. 177,403.

My invention relates to screens, particularly those used for supporting granular material in filters and water softeners.

It is the object of my invention to provide a screen for supporting granular material which will prevent the entrance of material into and through the material distributing said fluid which at the same time prevents the fine, granular material from making its exit through the screen.

Referring to the drawings:

Fig. 1 is a plan view of the screen in completed form;

Fig. 2 is a section through the screen plate before it has been worked upon;

Figure 3 shows the slot formed in the screen plate;

Fig. 4 shows the formation of the final ridge containing the slot in the screen plate.

Referring to the drawings in detail it will be observed that in Fig. 1 I have provided a screen composed of a plurality of sections in which there are arranged in regular order a series of spaced, raised areas having relatively long, fine slots.

1 designates one section of the screen plate. The method of forming such plates consists of first depressing a portion of the metal of the plate in such a way as to move a tongue thereof outwardly, such tongue being designated 2 and thereby shearing it along a vertical face 3. The extent of the struck-up portion of the part 2 will determine the width of the resulting bend formed by an extrusion in like manner in a similar adjacent part designated 4. I have found that it is impossible to cut a slot which will be fine enough in a plate of this character to retain the granular material and, at the same time, permit the fluid to flow therethrough. The result of this operation is to form a very fine long narrow slot 5, any number of which may be arranged in spaced parallel relationship in the struck-up portions 2 and 4 of the metal of the section of the plate.

It is preferred to have these slots relatively narrow and relatively long so that the total area of the water introduced will be large and well distributed but the slot itself will be so narrow that the material can not fall through it.

By having the struck-up portions I form an irregular bed for the material supported thereby which bed is constantly being stirred and moved by the water or other fluid passing upwardly through the closely adjacent slots.

It will be understood that I desire to comprehend within my invention such modifications as may be necessary to adapt it to varying conditions and uses.

Having thus fully described my invention what I claim is new and desire to secure by Letters Patent, is:—

1. In a method of forming a screen plate, striking-up a portion of the plate, causing the struck-up portion to shear from the remainder of the plate along one vertical face, and striking up a second portion adjacent the first portion whereby the severed faces remain adjacent to one another in a struck up area to provide a very fine line of opening.

2. In a method of forming a screen plate, shaping a circular plate and forming in said circular plate a series of concentrically and radially arranged elongated slots, said slots being formed by striking up a portion of said plate and forming in said struck-up portion very fine elongated openings.

3. In a method of forming a screen plate, shaping a circular plate and forming in said circular plate a series of longitudinally and radially arranged elongated slots, said slots being formed by striking up a portion of said plate causing the struck-up portion to shear from the remainder of the plate along one vertical face, and striking up a second portion adjacent the first portion whereby the severed faces remain adjacent to one another in the struck-up area to provide a very fine line of opening.

In testimony whereof, I affix my signature.

CHAS. P. EISENHAUER.