Sept. 29, 1925. 1,555,574

R. HERRMANN

SPLIT SIEVE FORMED WITH WIRES OR BARS OF SPECIAL PROFILE

Filed May 22, 1925

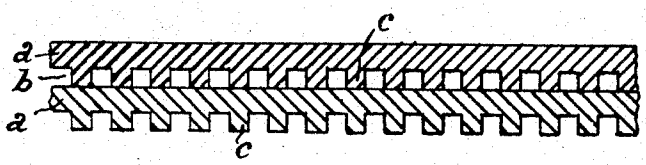


Fig. 1.

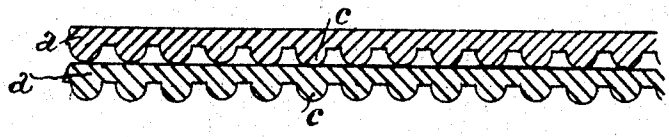


Fig. 2.

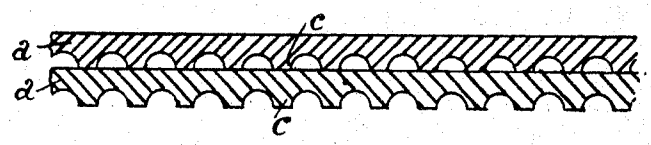


Fig. 3.

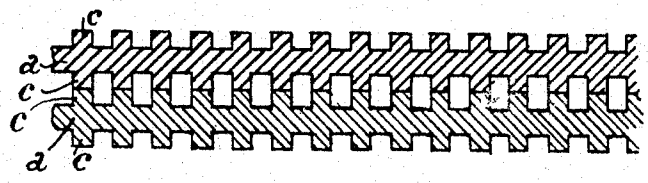


Fig. 4.

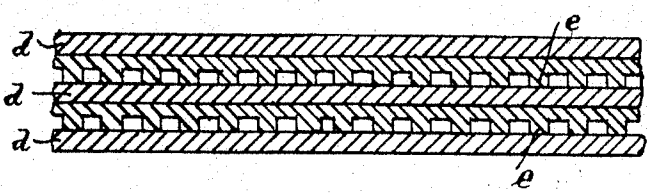


Fig. 5.

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UNITED STATES PATENT OFFICE.

RUDOLF HERRMANN, OF DRESDEN-ON-THE-ELBE, GERMANY.

SPLIT SIEVE FORMED WITH WIRES OR BARS OF SPECIAL PROFILE.

Application filed May 22, 1925. Serial No. 32,218.

To all whom it may concern:

Be it known that I, RUDOLF HERRMANN, engineer, a subject of the Free State of Saxony, German Republic, and resident of Dresden-on-the-Elbe, Free State of Saxony, German Republic, have invented a new and useful Improvement in or Relating to Split Sieves Formed with Wires or Bars of Special Profile, of which the following is a specification.

This invention relates to split-sieves formed with wires or bars of special profile.

In the use of sieves of the above indicated kind it is of special importance for the operations of finely sorting, filtering, and mechanically separating liquids from solids, that the apertures of the sieves are as uniform as possible and of such nature that a passage of the material through the sieve is only possible up to a definite size of granule or particle; in the operation of filtering and separating liquids from solids it is particularly important to prevent particles of an undesirably large size from passing through the sieve apertures. For this purpose the split-sieves of the usual kind provided with narrow slots do not meet the requirements for the reason that inaccuracies inevitably arise with such sieves, that is to say, the apertures are in some places too narrow and in other places too wide. Furthermore it is not advantageous for the operation of sorting fine material to make use of the usual kind of split-sieve because lengthy pieces of the material to be sifted and sorted can pass through the long slots, thus causing an irregularity of the sorting which is much more undesirable and disadvantageous in fine sorting than in coarse sorting.

The novelty of the sieves according to the present invention consists herein, that the profile wires or bars are provided with projections, tongues or the like adapted to abut against an adjacent wire or bar, thus forming a series of sifting or sorting apertures of uniform dimensions and enabling any desired subdivision of the mesh slots to be obtained.

When the said subdivision is effected by projections, tongues or the like of a length about equal to the spaces between the said projections, a round or rectangular orifice is formed through which only pieces of a completely uniform size can pass on sifting. In all cases a completely uniform width of mesh slot is obtained, when the profile wires or bars are assembled, by reason of the projections, tongues, or the like of each profile wire or bar abutting against the adjacent wire or bar.

The present invention is represented in various forms of construction in the accompanying drawings, in which

Figs. 1, 2 and 3 represent profile-wires or profile-bars with depressions or grooves arranged on one side of the same;

Fig. 4 shows profile-wires provided with depressions or grooves on both sides and arranged opposite to one another;

Fig. 5 shows part of a sieve in which wires or bars provided with depressions or grooves are inserted between plane profile-wires.

Referring to the drawings, *a* are the profile-wires or bars assembled closely together in a known manner so as to form a split-sieve. For effecting a subdivision of the continuous mesh slots *b* (Figs. 1, 2 and 3) the profile bars *a* are provided with projections *c* in such a manner that the said mesh slots of the sieve are subdivided into smaller sifting apertures. The projections arranged on the profile-wires can be of various shapes, as represented in Figs. 1, 2 and 3. In the arrangement shown in Fig. 4, the projections *c* provided on adjacent profile-bars *a* meet one another.

The subdivision of the mesh slots can also be effected by an intermediate bar *d* inserted between plane profile-bars *a* as shown in Fig. 5. Said intermediate bars are provided with projections *e* and the apertures between the projections may be of any shape; those illustrated are similar to the apertures shown in Fig. 1, so that the mesh slots are subdivided into small sifting apertures by the intermediate bars *d*.

What I claim is:

1. A split sieve comprising a series of profie wires assembled longitudinally in close relation, each of said wires being provided on opposite sides with transversely arranged projections spaced equidistant and adapted to abut the projections on the adjacent wire, thereby forming a plurality of sifting apertures of uniform dimensions.

2. A split sieve comprising a series of pro-

file wires assembled longitudinally in close relation, each of said wires being provided with transversely arranged projections spaced equidistant and adapt d to abut the adjacent wire, each of the spaces between said projections being substantially equal to the length of the adjacent projections, thereby forming a plurality of sifting apertures of uniform dimensions.

In testimony, that I claim the foregoing as my invention, I have signed my name this eighth day of May 1925.

RUDOLF HERRMANN.