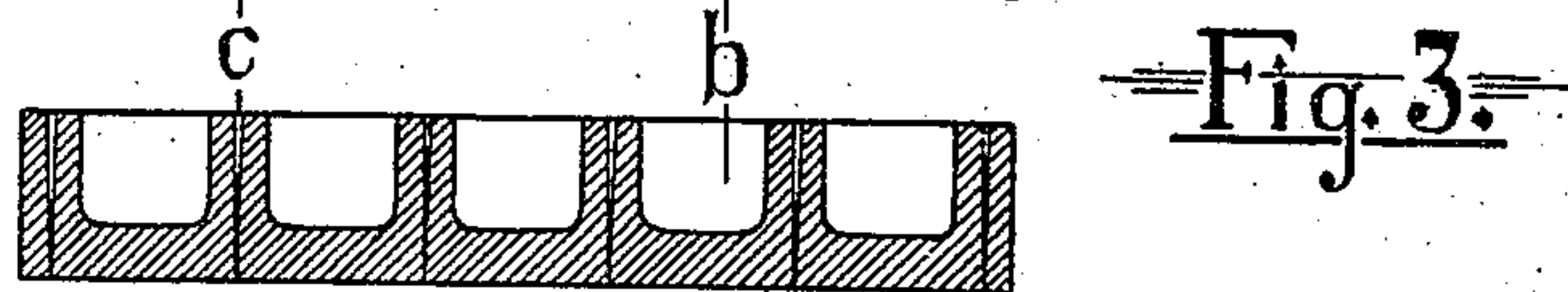
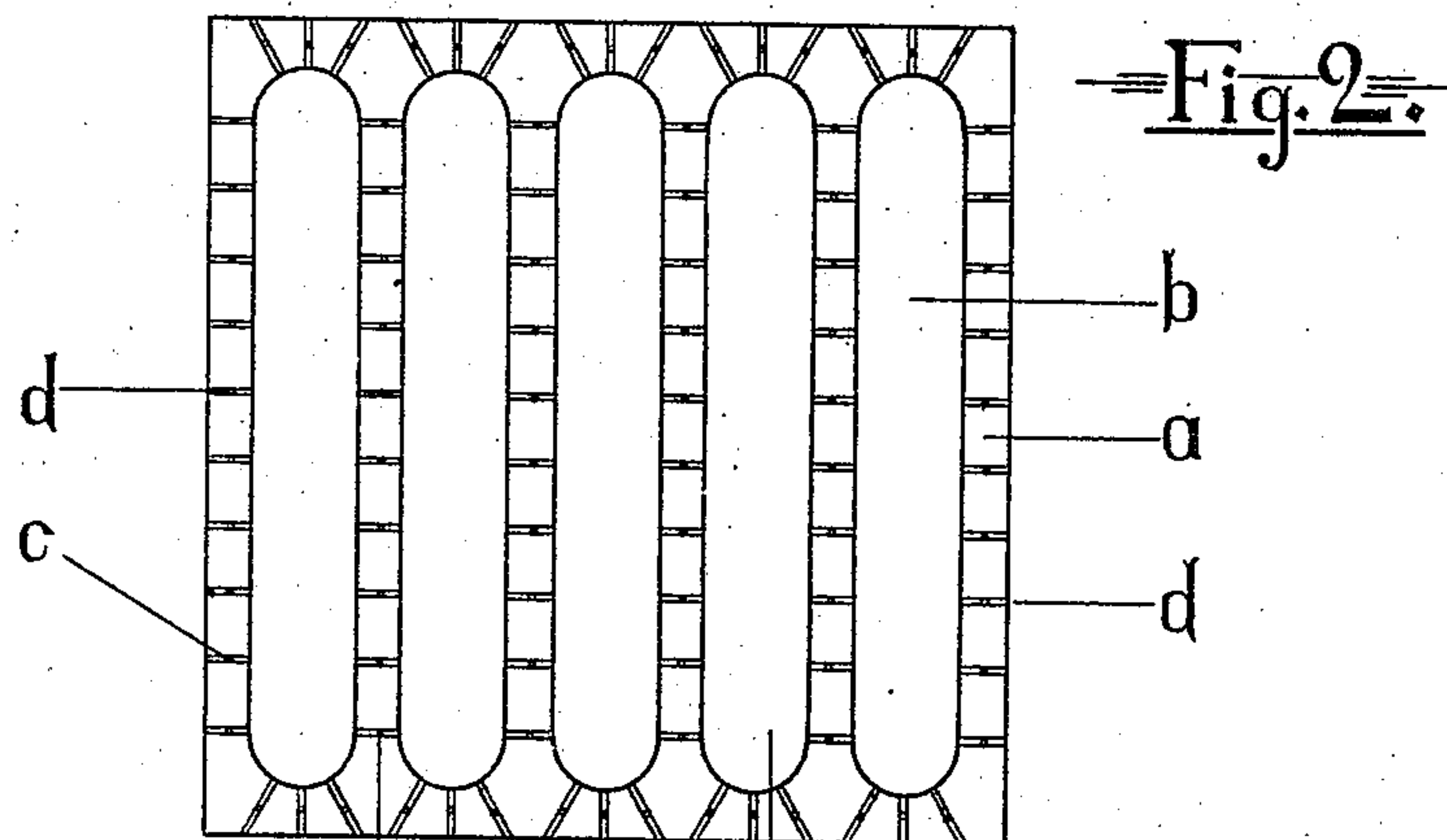
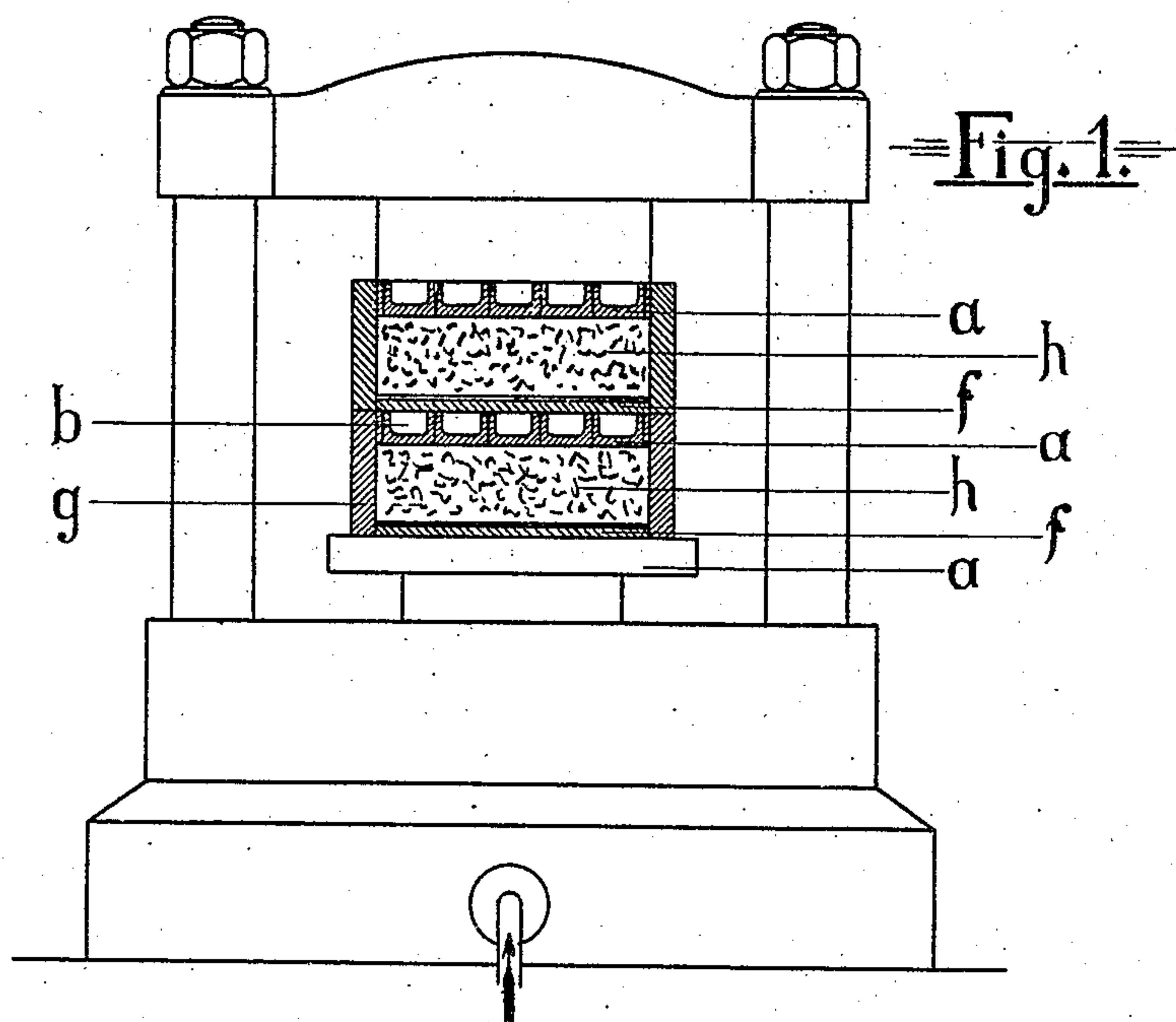


No. 848,171.

PATENTED MAR. 26, 1907.

J. HEMMERLING.  
PRESS FOR MOIST MATERIALS.  
APPLICATION FILED MAY 22, 1906.



Witnesses:

*B. E. Jones*  
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*Josef Hemmerling*  
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*Attorney*



# UNITED STATES PATENT OFFICE.

JOSEF HEMMERLING, OF DRESDEN, GERMANY.

## PRESS FOR MOIST MATERIALS.

No. 848,171.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed May 22, 1906. Serial No. 318,123.

*To all whom it may concern:*

Be it known that I, JOSEF HEMMERLING, a subject of the German Emperor, residing at Dresden, Germany, have invented certain new and useful Improvements in Presses for Moist Materials, of which the following is a specification.

In strongly compressing moist materials, such as peat or the like, the removal of the moisture sometimes presents difficulties, as the liquid pressed out by well-known devices often carries away numerous ingredients of the material compressed, so that there is not only a general loss of material, but in many cases certain ingredients are removed the removal of which affects the nature of the final product. This is, for instance, the case in compressing peat.

The object of the invention is to express only and as completely as possible all liquid from the moist material treated, such as peat and the like, even when very high pressures are applied. The press according to this invention is arranged in well-known manner, so that the material filling it is divided by hollow intermediate parts or partitions. The hollow spaces of the intermediate partitions are in communication with the space of the press by means of fine openings in the said intermediate partitions and receive the liquid pressed out of the material. In well-known presses of this kind, more particularly when very high pressure is used, the above-mentioned drawbacks are noticeable, as no provision is made for the loss of material in the pressed-out water.

According to this invention in the press-bodies or intermediate parts inserted the hollow spaces and the fine passages connecting them with the press-chamber are arranged in such manner that when the press is working only air, but not expressed liquid, can escape from the hollow spaces, while the liquid entering the hollow spaces is prevented from carrying with it fine particles of peat and the like by the air-pressure in the said hollow spaces.

A construction of a press according to this invention for depriving peat and the like of water is illustrated by way of example in the accompanying drawing, in which—

Figure 1 is a diagrammatic view of the arrangement applied to a hydraulic press in vertical section. Fig. 2 shows a hollow partition in plan, and Fig. 3 shows the same in vertical section.

As shown in Figs. 2 and 3, the hollow partition *a*, preferably made of cast-iron, is provided with a number of deep parallel grooves *b*, the total capacity of which corresponds, say, to the quantity of liquid contained in one layer of the material to be compressed. The bridges between the separate grooves are provided with vertical perforations *c*, which open on the upper surface into transverse grooves *d*.

The working of the device described is as follows: On the press-table *e* is placed in a well-known manner a perforated plate *f*, which forms the bottom of the frame-shaped mold *g*. The latter is filled up to a certain level with the moist material *h* to be compressed. Thereupon a hollow body *a* is put in. Further layers are placed in the same way, the well-known perforated plate *f* being placed on the hollow partition *a*, if desired, with a layer of canvas inserted, and then the material *h* is placed on the top. In the same sequence as many layers are formed as is possible with regard to the height of the press. Of course a hollow body could also be placed under the bottom perforated plate *f*. The liquid pressed out of the material passes through the grooves *d* and the openings of the plates *f* into the separate chambers *b* of the hollow partition *a*. During the pressure a certain air-pressure is produced in the said chambers, which increases as the press-table rises. The liquid pressed out, which passes into these chambers in which there is a pressure, is naturally unable to carry with it solid particles. A portion of the air escapes from the hollow chambers *b*, but not the liquid forced into them, owing to the position of the hollow plates and owing to the dimensions of the chambers *b* being such that they can take up the whole quantity of liquid expressed.

What I claim is—

1. A press, for moist materials, provided with a plate for insertion therein, said plate having chambers communicating with the main chamber of the press for receiving and retaining the liquid pressed out of the moist material, substantially as described.

2. A press provided with a main chamber for receiving moist materials and a plate having chambers therein and adapted to be placed upon said materials in said main chamber, said chambers in the plate communicating with the main chamber, substantially as described.

3. A press for moist materials provided

with a chamber to receive moist materials,  
and a plate adapted to rest upon said moist  
materials in the press, said plate having  
chambers in its upper surface communicating  
5 with the main chamber, substantially as de-  
scribed.

4. A press provided with a main chamber  
to receive moist materials, and a plate to  
rest upon said materials in the press, said  
10 plate being provided with chambers in its  
upper surface and having vertical perfora-  
tions, substantially as described.

5. A press provided with a main chamber  
to receive moist materials and a plate to rest  
upon said materials in the press, said plate 15  
being provided with chambers in its upper  
surface and with vertical perforations and  
transverse grooves substantially as described.

In testimony whereof I affix my signature  
in presence of two witnesses.

JOSEF HEMMERLING.

Witnesses:

PAUL E. SCHILLING,  
PAUL ARRAS.