May 26, 1970 J. W. MILLER 3,513,984

TILE SETTER

Filed Dec. 5, 1967 2 Sheets-Sheet 1

Fig. 1.

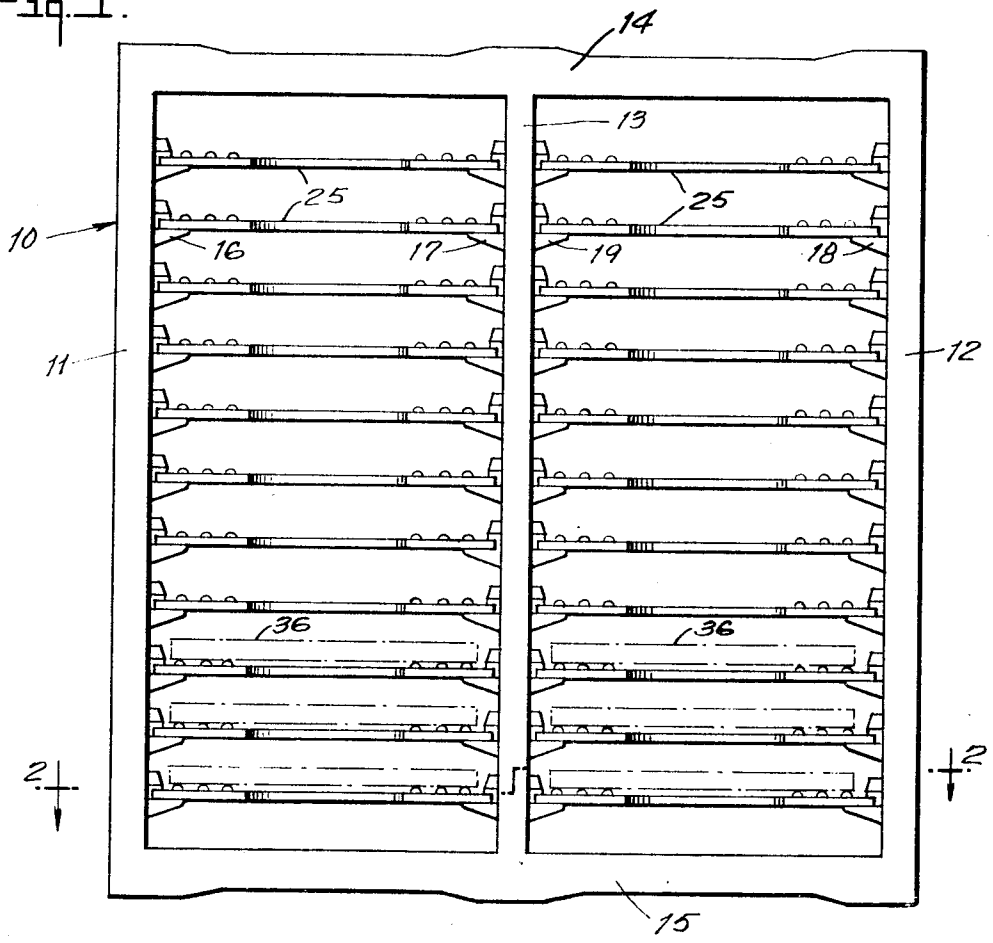
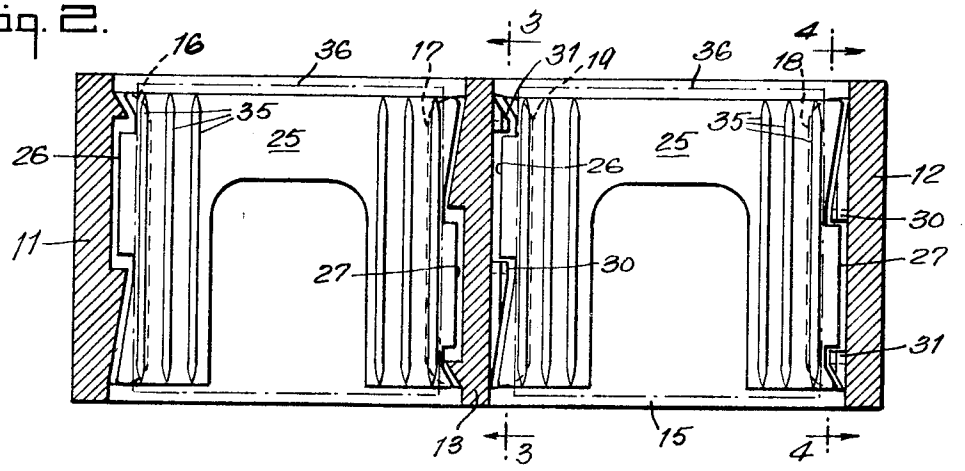


Fig. 2.



INVENTOR
JOHN W. MILLER

BY
Luther W. Hawley
ATTORNEY

May 26, 1970 J. W. MILLER 3,513,984

TILE SETTER

Filed Dec. 5, 1967 2 Sheets-Sheet 2

Fig. 3.

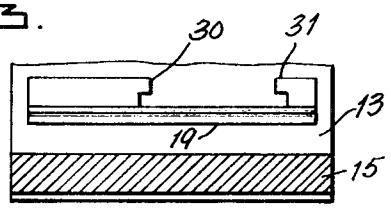


Fig. 4.

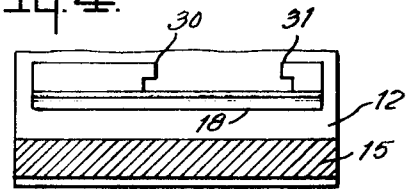


Fig. 5.

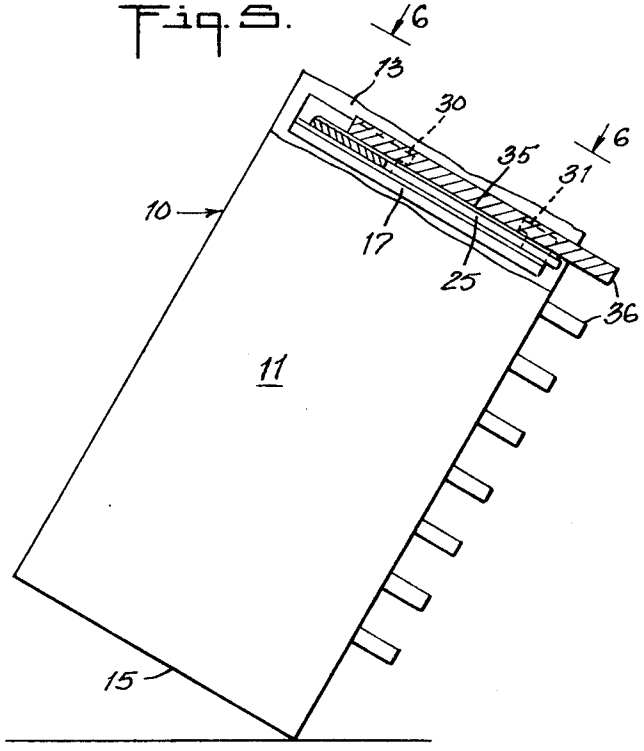


Fig. 6.

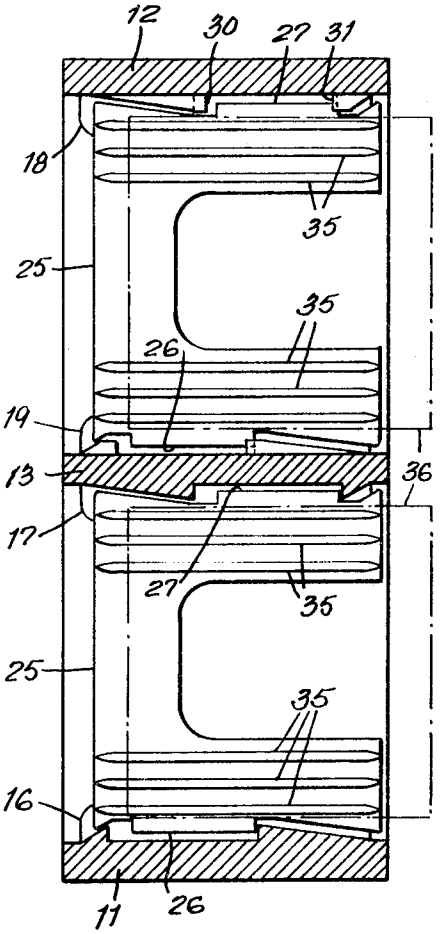
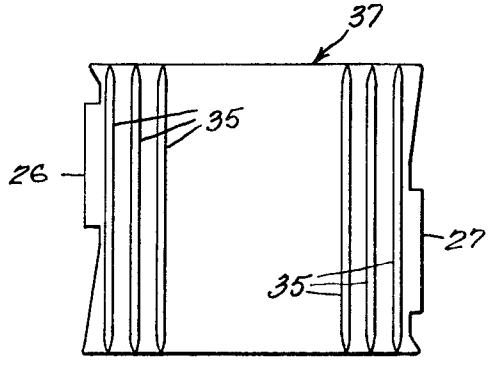


Fig. 7.



INVENTOR
JOHN W. MILLER

BY
Luther W. Hawley

ATTORNEY

United States Patent Office 3,513,984 Patented May 26, 1970

3,513,984

TILE SETTER

John W. Miller, New Castle, Pa., assignor to The Joseph Dixon Crucible Company, Jersey City, N.J., a corporation of New Jersey

Filed Dec. 5, 1967, Ser. No. 688,117
Int. Cl. A47f 5/00
U.S. Cl. 211—134 8 Claims

ABSTRACT OF THE DISCLOSURE

The invention involves a setter frame having a plurality of sets of opposed ledges for supporting setter shelves mounted for manual removal but locked against removal from the ledges when the setter frame is tilted to eject the ceramic tiles from the setter shelves.

This invention relates to a tile setter or sagger for supporting tiles in the proper position for firing.

More particularly stated, the invention relates to a setter frame having oppositely disposed ledges for supporting the setter shelves, the shelves being removably mounted on the ledges in such a way that the setter frame can be tilted to dump the tiles when they have been set but the setter shelves will not slide out from the setter frame.

One of the objects of the invention is to provide a setter frame with a plurality of supporting ledges and so constructed that the setter shelves can be supported thereon but can be manually removed and replaced at will.

Another object of the invention is to provide a setter frame for a plurality of supporting ledges for setters so constructed and arranged that the setter frame can be tilted to eject the tiles from the setter shelves but the setter shelves will be held on the ledges during this operation.

Further objects of the invention will be clear from the following specification taken in connection with the drawings which form a part of this application and in which:

FIG. 1 is an elevational view of a setter frame and setter shelves mounted in position therein;

FIG. 2 is a sectional elevation taken substantially on line 2—2 of FIG. 1 and showing the setter frame and setter shelves in place, looking in the direction of the arrows;

FIG. 3 is a transverse sectional elevation taken substantially on line 3—3 of FIG. 2 looking in the direction of the arrows;

FIG. 4 is a transverse sectional elevation taken substantially on line 4—4 of FIG. 2 looking in the direction of the arrows;

FIG. 5 is a side elevation showing the setter frame tilted to eject the tiles therefrom;

FIG. 6 is a sectional elevation of the setter shelves and support in the position taken when the setter shelves are held in position during this operation; and

FIG. 7 is a top plan view of one of the setter shelves in a slightly modified form without the cut-out portion shown in the preceding figures.

In the form of the invention shown in the drawings, there is illustrated a setter frame **10** having side walls **11** and **12** and a central partition **13**. The top and bottom of the setter frame are shown at **14** and **15**.

There are supporting ledges **16** and **17** which extend toward each other in opposed relation from the side wall **11** and the central partition **13**. The ledges extending from side **12** are designated **18** and the ledges extending from the side **13** are designated **19**.

Setter shelves **25** are mounted on the ledges as shown in FIG. 1 and each setter shelf has laterally extending portions **26** and **27**. These portions are not disposed opposite each other but are offset, a portion **26** being shown adjacent one edge of the setter shelf and the portion **27** being shown adjacent the other edge of the setter shelf. There are shown oppositely extending lugs **30** and **31** above the shelves as shown in FIG. 3 and these lugs are disposed above the latterally extending portions **26** and **27** of the shelves and retain the setter shelves in position when the setter frame is tilted as shown in FIG. 5. These lugs are shown in FIGS. 3 and 4.

Thus when the frame **10** is tilted as shown in FIG. 5 the shelves can be moved to a slight extent but are held against accidental ejection by the lugs **30** and **31** which overlay the projecting portions **26** and **27** as shown in FIG. 6.

Each of the setter shelves is provided with outwardly projecting ribs **35** for supporting the tiles **36** above the setter shelves and in the proper position for firing.

If desired the setter shelves can be formed as shown in FIG. 7 at **37** with a solid surface instead of with a cut-out as shown in the preceding figures.

It will be seen from the foregoing specification that means has been provided for properly supporting tiles in the proper position for firing and in such a way that the tiles can be removed or ejected from the setters by tilting the setter frame for the setter shelves without removing the setter shelves from the support.

Although one specific embodiment of the invention has been particularly shown and described, it will be understood that the invention is capable of modification and that changes in the construction and in the arrangement of the various cooperating parts may be made without departing from the spirit or scope of the invention as expressed in the following claims:

1. A tile setter for firing tile comprising:
(a) a setter frame having opposed vertically extending walls,
(b) a plurality of supporting ledges disposed on the walls in opposed relationship with respect to one another to removably support setter shelves therebetween, and
(c) abutment means located above each of the supporting ledges to engage and hold the setter shelves in place when the setter is tilted in any manner to dump tiles therefrom.

2. A tile setter as defined in claim **1** wherein
the abutment means includes inwardly directed projections disposed on either edge of each supporting ledge.

3. A tile setter as defined in claim **2** wherein
each said abutment means and each said supporting ledge form notches adjacent the edges thereof on each wall at a distance shorter than the greatest width of the setter shelves and
each setter shelf includes a laterally extending portion on opposed sides thereof to rest on said supporting ledges,
each said laterally extending portion has a width sufficient to fit between the notches.

4. A tile setter as defined in claim **3** wherein
the laterally extending portions on opposed sides thereof are offset with respect to each other.

5. A tile setter as defined in claim **3** wherein
the setter shelves have a cut-out portion in the center section thereof.

6. A tile setter as defined in claim **3** wherein
the setter shelves have inclined edges adjacent the laterally extending portions and

the supporting ledges include inclined portions above the setter shelves conforming in shape to the inclinations of the setter shelves.

7. A tile setter as defined in claim 6 wherein the laterally extending portions on opposed sides thereof are offset with respect to each other.

8. A tile setter as defined in claim 7 wherein the setter shelves have a cut-out portion in the center section thereof.

References Cited

UNITED STATES PATENTS

2,033,861	3/1936	Otte	211—134 X
2,427,767	9/1947	Drake	211—134 X
2,875,016	2/1959	Fry	211—134 X
2,936,899	5/1960	Tashman	211—134 X

NILE C. BYERS, JR., Primary Examiner