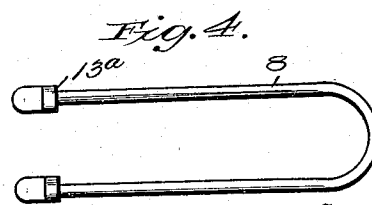
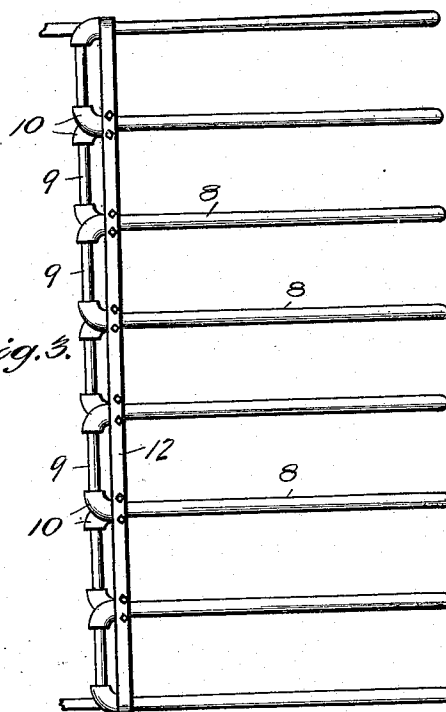
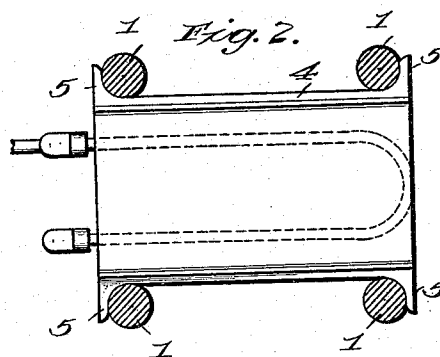
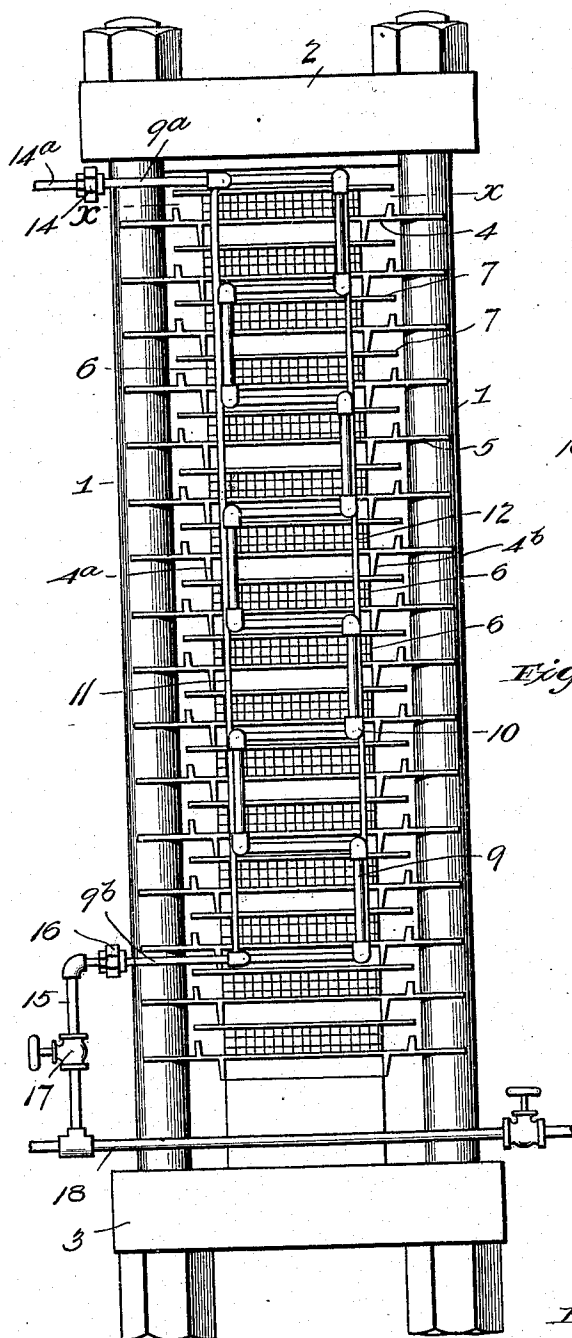


F. E. VOORHIES.
PRESS RADIATOR.
APPLICATION FILED OCT. 10, 1908.

937,397.

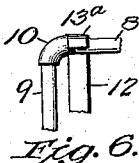
Patented Oct. 19, 1909.

Fig. 1.



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Witnesses
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UNITED STATES PATENT OFFICE.

FELIX E. VOORHIES, OF BROUSSARD, LOUISIANA.

PRESS-RADIATOR.

937,397.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed October 10, 1908. Serial No. 457,132.

To all whom it may concern:

Be it known that I, FELIX E. VOORHIES, a citizen of the United States, residing at Broussard, in the parish of Lafayette and State of Louisiana, have invented certain new and useful Improvements in Press-Radiators, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in portable radiators or heaters especially designed for use in connection with oil presses, and has for its object to provide a radiator which can be easily applied to a press and will heat the same rapidly.

Other objects and advantages of this invention will appear in the course of the following specification.

In the accompanying drawing: Figure 1 is a front view of a press with my radiator in position therein; Fig. 2 is a top plan view of my device on the line X—X Fig. 1; Fig. 3 is a side view of my improved radiator; Fig. 4 is a top plan view of one of the sections of my radiator; Fig. 5 is a side view showing the manner of connecting the sections to the side pieces, and Fig. 6 is a side view showing how the side pieces are secured at their ends.

Referring to the drawings, which illustrate the preferred form of my invention, 1 designates the pillars of the press, to which are connected the head 2 and the base 3. Adapted to be movably mounted between the pillars 1 are plates 4 provided at their corners with projections 5, which are curved on their inner sides to conform to the contour of the pillars. Longitudinal ribs or projections 4^a and 4^b are formed upon the bottom of each of the plates 4, which ribs are designed to rest upon plates 7 on the boxes 6.

The radiator or heater is formed of a number of U-shaped sections of pipe 8, which are adapted to be connected together by short pieces of pipe 9 by means of elbows 10. As many U-shaped sections can be connected together in this manner as is desired, and they may be so spaced apart as to enter each space formed between the boxes 6, or every second or third space, as may be preferred. I have found in practice that to have the sections 8 enter every second space between the boxes gives satisfactory results. Beginning at the top of the radiator, it will be noted, that each pipe 9, con-

necting the sections 8 together, is on a side opposite to the one immediately below it. For convenience in coupling the radiator up to the steam supply and exhaust I provide the entrance to the radiator with a short piece of piping 9^a and the exit with a piece 9^b.

To aid in maintaining the U-shaped sections in their spaced relation with each other I employ flat side bars 11 and 12. One of these bars is secured to each side near the front of the sections by means of U-bolts 13 to the threaded ends of which are secured nuts. The ends of the side bars are turned over the sides of the upper and lower sections as at 13^a, Fig. 6.

The radiator just described is so light that it can be easily handled by one man. When it is desired to heat a press, the radiator is placed in the same, that is, the U-shaped sections enter the space between every other box. The pipe 9^a at the top of the radiator is then connected by a union 14 to a steam hose or pipe 14^a, which latter is connected to a steam header, not shown. Steam enters through the pipes 14^a and 9^a into the top U-shaped member 8, passes through the same, then down through the connecting pipe 9 into the next U-shaped section and so on through all the sections. After passing through all the U-shaped sections the steam passes out through the pipe 9^b into a pipe 15, which is connected to the pipe 9^b by a union 16. The pipe 15 is provided with a gate valve 17 and said pipe is connected to an exhaust header 18 provided with a suitable steam trap (not shown) thereby insuring that the steam in the radiator will be at boiler pressure.

As is apparent my radiator can be used to serve a number of presses, as all that it is necessary to do is to uncouple and remove it from the heated press, and place it in another and couple up with the steam header and exhaust header, which should both be located conveniently to the presses.

When my radiator is in position for the purpose of heating, it is desirable to place a canvas cover or hood (not shown) over the press. The cover will aid very materially in keeping in all the heat given off by the radiator.

What I claim is:

1. A portable heater for presses, comprising a plurality of vertically-arranged, horizontally-extending pipe sections, the pipes of

each section lying in substantially the same horizontal plane and having communication with each other, pipes forming communication between adjacent sections, the end sections having communication respectively with a source of supply and an exhaust, and supporting strips having a direct connection with the upper and lower sections and supplemental connection with the intermediate sections, whereby all of said sections are held in spaced relation.

2. A portable heater for presses, comprising a plurality of vertically-arranged, horizontally-extending pipe sections, the pipes of each section lying in substantially the same horizontal plane and having commu-

nication with each other, pipes forming communication between adjacent sections, the end sections having communication respectively with a source of supply and an exhaust, vertically-arranged supporting strips having out-turned ends which engage with the upper and lower sections respectively, and intermediate bolts engaging with the intermediate sections, whereby all of said sections are held in spaced relation.

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

FELIX E. VOORHIES.

Witnesses:

CLEM D. CAFFERY,
A. J. LE BLANC.