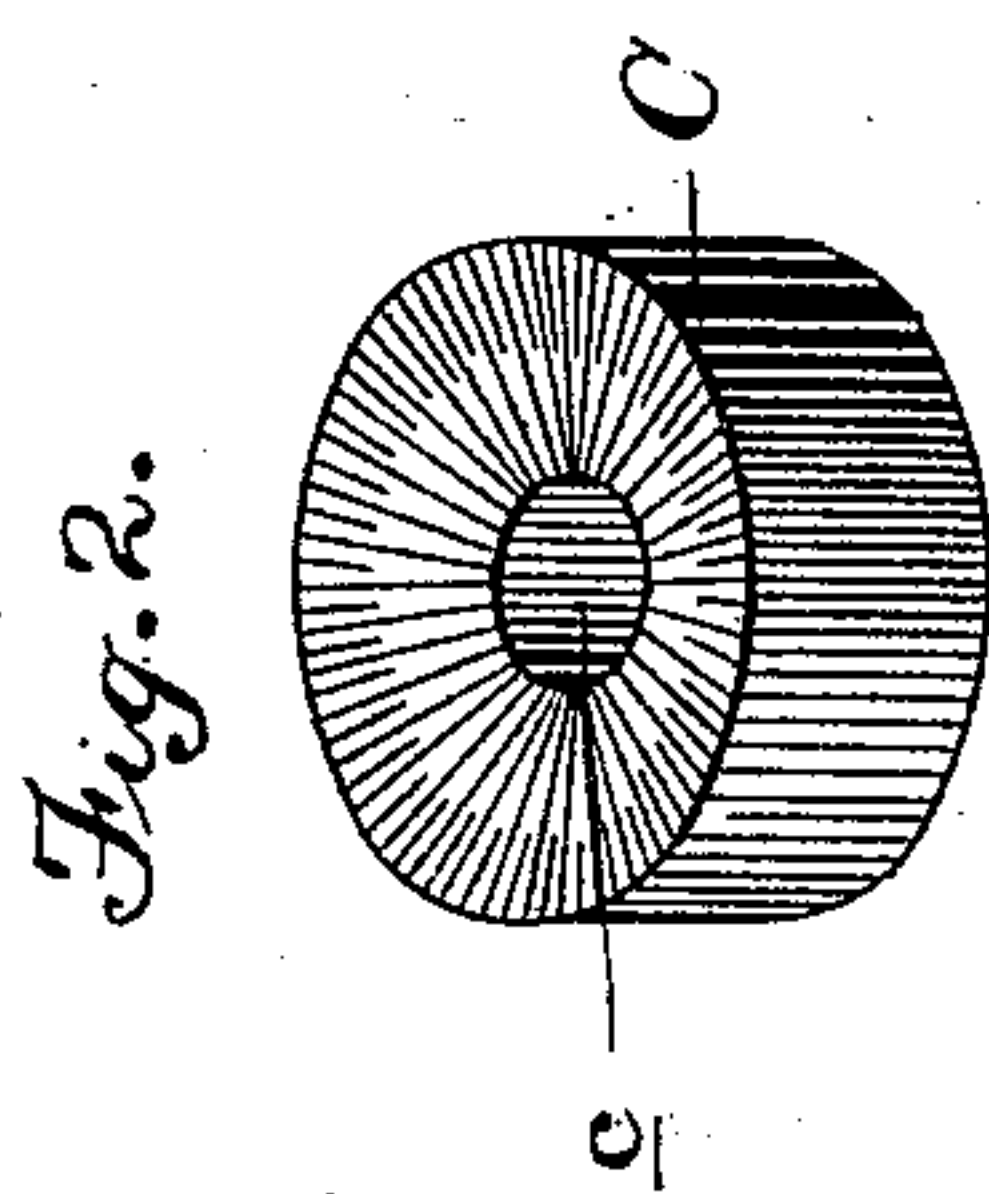
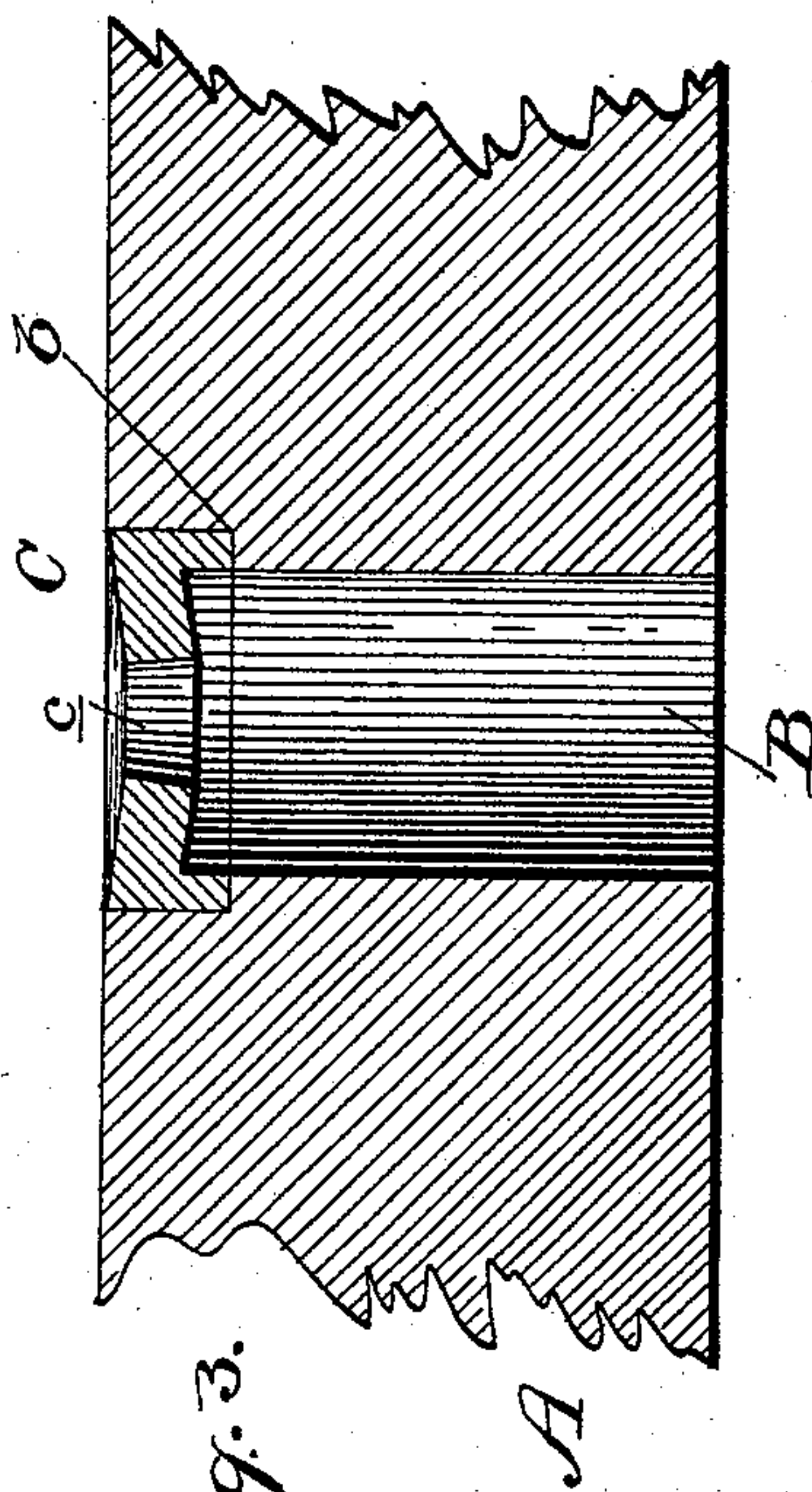
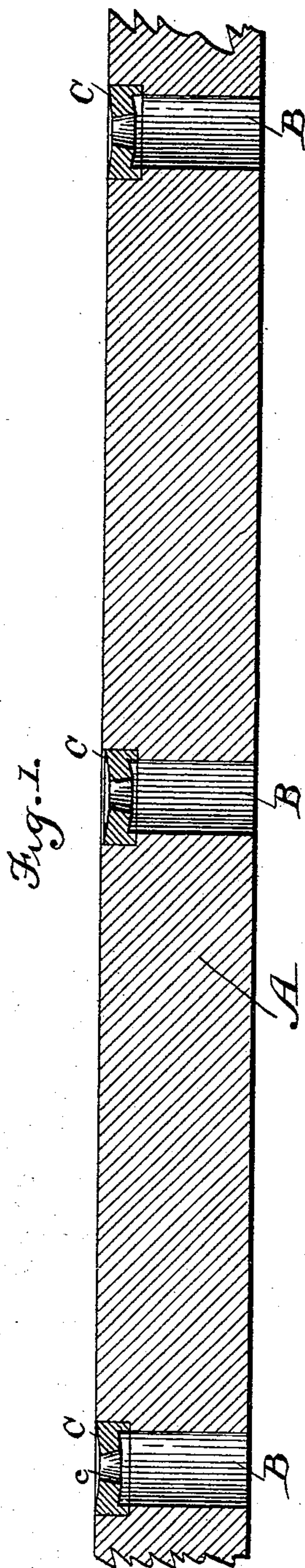


(No Model.)

E. COON.
FLOOR DRAINER.

No. 496,862.

Patented May 9, 1893.



Witnesses
Thos. E. Robertson
W. E. Clendaniel.

Inventor
Emmett Coon
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Attorney

UNITED STATES PATENT OFFICE.

EMMETT COON, OF ANN ARBOR, MICHIGAN.

FLOOR-DRAINER.

SPECIFICATION forming part of Letters Patent No. 496,862, dated May 9, 1893.

Application filed January 26, 1893. Serial No. 459,798. (No model.)

To all whom it may concern:

Be it known that I, EMMETT COON, a citizen of the United States of America, residing at Ann Arbor, Washtenaw county, Michigan, have invented certain new and useful Improvements in Floor-Drainers, of which the following is a specification, reference being had therein to the accompanying drawings.

This improvement is designed to keep stable and other floors dry, so that the bedding may be kept drier and thus not only keep the stock cleaner and more comfortable, but save the bedding material in good order longer and also save the floor itself from rotting so fast. To these ends, I have invented the floor drainer herein set forth, and the invention consists in the peculiar arrangement, construction and combinations of parts hereinafter more fully described and then definitely claimed.

In the accompanying drawings—Figure 1 represents a vertical section of part of a stable floor constructed according to my improvement. Fig. 2 is a perspective view of the drainer, detached and on a larger scale. Fig. 3 is a vertical central section of the same on a similar scale set in a plank.

Referring now to the details of the drawings by letter—A represents an ordinary floor plank, in which are bored, at suitable intervals, holes B of about an inch in diameter in the smallest part of the bore, but larger above so as to leave a shoulder *b*, see Fig. 3, in which the drainer C is set so as to rest on said shoulder, leaving its top outer edge even with or slightly below the top of the plank, so that any liquid that may drop on the floor may drain through the hole *c* in the center of the drainer.

I make the top of the drainer slightly concave or inclined toward the hole in the center, so that the liquid will be more certain to run toward and through the hole *c*. I prefer to cup out the under side as shown and to make the central hole slightly larger at the bottom than at the top, as it will be less likely to get stopped up with dirt, as anything that will pass through the top of the hole will be likely to continue to fall and pass clear

through. I also prefer to make the lower edge of the hole a trifle lower than the metal immediately surrounding said edge for in this case the liquid will run down directly from said edge and thus not spread along the under surface until it reaches the wood work and saturates that before it falls.

The holes in the plank may be so bored as to be a tight fit for the drainers and the latter may be readily driven in by a hammer so as to hold perfectly secure in place, or the drainers may not be so tight a fit and be set in with a little white or red lead, which as it becomes dry will securely hold the drainer in place.

A floor provided with my drainers will be always dry, and the bedding material can therefore be used much longer and will be more comfortable to the animal, as even if some of the holes should get stopped, some of them are sure to be open, and the passage of a stiff broom over them will clean out most of the holes.

I deem it important that the drainer be made in the form of a round disk having a substantially vertical edge, for by this means I am enabled to set the drainer perfectly tight in the planks of the floor without the necessity of other receptacles or means of securing them to the floor—all that is necessary being a simple tool that will bore a hole with a shoulder and with such a tool these drainers may be set in by any laborer; or the hole may with nearly equal ease be bored with two common augers of different sizes. I also consider it important that the drainer have a rim around the under side as at *c'*, for this serves to strengthen it and forms a larger surface to hold it in the wood of the floor, without making the drainer heavy, as it necessarily would be if of the thickness of the rim throughout.

I consider the use of a single drainer with a comparatively large sized hole as much preferable to a drainer large enough to have a number of holes in it, for when the drainer is as small as mine, there is no likelihood of a horse slipping on it, which will be found to be the case when the surface of the drainer is large, as it necessarily must be when more

than one hole is made in it, unless such holes are made small enough to be easily stopped up.

What I claim as new is:—

As a new article of manufacture, the drainer
5 herein shown and described, consisting of a
round disk with substantially vertical edges,
a concave top, a central hole whose bottom is
larger than its top, and the bottom of said
disk being cupped out to form a rim at the
10 outer edge and with the lower edge of the

wall of the hole lower than the body of the disk, all substantially as described and shown.

In testimony whereof I affix my signature, in presence of two witnesses, this 23d day of January, 1893.

EMMETT COON.

Witnesses:

ROBA PULCIPHER,
E. P. GOODRICH.