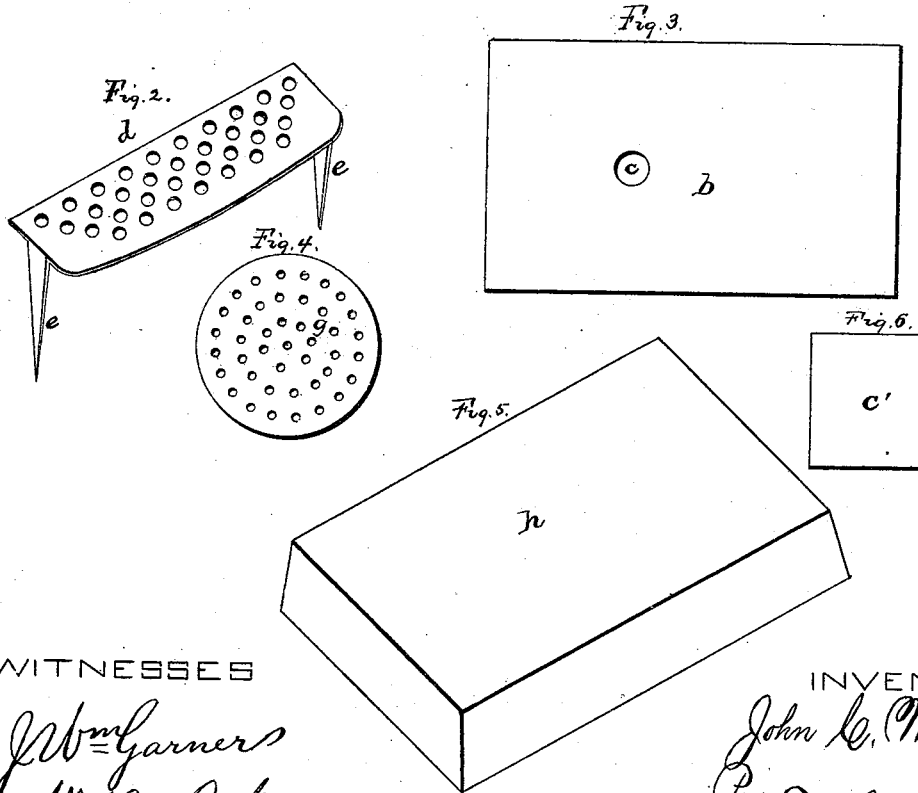
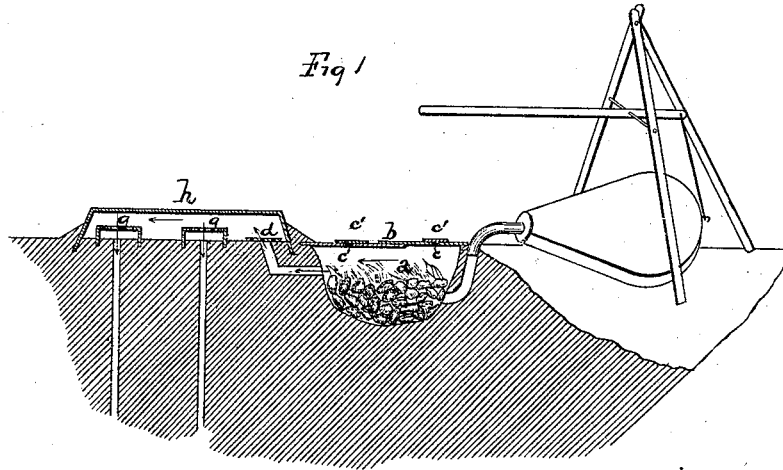


J. C. MELCHER.
INSECT-DESTROYER.

No. 191,360

Patented May 29, 1877.



WITNESSES

J. W. Garner
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INVENTOR

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att'y

UNITED STATES PATENT OFFICE.

JOHN C. MELCHER, OF O'QUINN, TEXAS.

IMPROVEMENT IN INSECT-DESTROYERS.

Specification forming part of Letters Patent No. 191,360, dated May 29, 1877; application filed April 25, 1877.

To all whom it may concern:

Be it known that I, JOHN C. MELCHER, of O'Quinn, in the county of Fayette and State of Texas, have invented certain new and useful Improvements in Insect-Destroyer; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in ant and insect destroyers; and it consists in the arrangement and combination of devices that will be more fully described hereinafter, whereby smoke and poisonous vapors can be forced down into the holes of the insects so as to destroy them.

The accompanying drawings represent my invention.

I first dig a suitable-sized trench in the ground, in which the fire is built. Over the top of this trench *a* are laid two or more plates, *b*, each one of which has a suitable opening, *c*, through it, and is provided with a plate, *c'*, to close the said opening. By using two or more separate plates, instead of one long one, they can be adjusted to suit the size of the trench, and, by means of the holes *c*, the fire can be inspected at any moment without having to uncover the trench. One end of the trench is connected with a hose, or pipe, that leads from a bellows, air-pump, or any other air-forcing apparatus, by means of which a current of air is kept flowing through the trench so as to not only keep the fire burning briskly, but to force the smoke and gases out at the other end of the trench. Over the exit end of the trench through which the smoke and gases are driven is placed the perforated piece of sheet metal *d*, which has sharp ends or points *e*, for forcing into the ground, so that it cannot be easily displaced. This plate serves to arrest any cinders, dirt, or other particles which may be blown from the fire, and which might have a tendency to clog up the insect-holes and thus prevent the smoke or vapor from being forced down into them. To still further protect the mouths of the holes from being stopped up by dirt, cinders, or other particles, a perforated cup-shaped cover, *g*, is placed over the top of each hole, the holes in the top of each cover being

smaller than those in the plate *d*. Over the exit-mouth of the trench, and the mouth of one or more of the ant-holes, is placed a smoke-chamber, *h*, of any suitable size and construction, which forms a reservoir for the products of combustion as they are forced from the trench. The edges of this chamber are forced down into the earth and then packed so as to prevent the escape of the smoke, and then the chamber is weighted so as to hold it securely down. As a general thing, two or more ant-holes are found together, so that a single chamber will cover all at once, in which case smoke and vapor can be forced into them all at the same time. In some instances it may be advisable to first bore a passage-way down to the ant-chamber in the ground, and then force down the smoke and vapor.

If desired, sulphur or some poisonous compound may be thrown into the fire that will make the smoke poisonous as well as suffocating, and thus make the destruction of the insects still more certain.

I am aware that it is not new to force poisonous gases, generated by burning some chemical upon a fire, down into the holes of insects or animals, for the purpose of destroying them, and this I disclaim.

Having thus described my invention, I claim—

1. The method described of killing ants and insects by building a fire in a trench in the ground, covering the same, and then forcing the products of combustion into a removable smoke-chamber, and thence into the ground, substantially as shown.
2. The removable smoke-chamber *h*, in combination with the fire-trench *a*, and an air-forcing device, substantially as set forth.
3. The combination of the perforated plate *d* and portable smoke-chamber *h*, as described.
4. The combination of the plate *d*, smoke-chamber *h*, and covers *g*, with the fire-trench and air-forcing apparatus, substantially as specified.

In testimony that I claim the foregoing, I have hereunto set my hand this 11th day of April, 1877.

JOHN C. MELCHER.

Witnesses:

W. BOLLMEIER,
JOHN F. MELCHER.