

M. RUMELY.
Spark-Arrester.

No. 227,656.

Patented May 18, 1880.

Fig. 1.

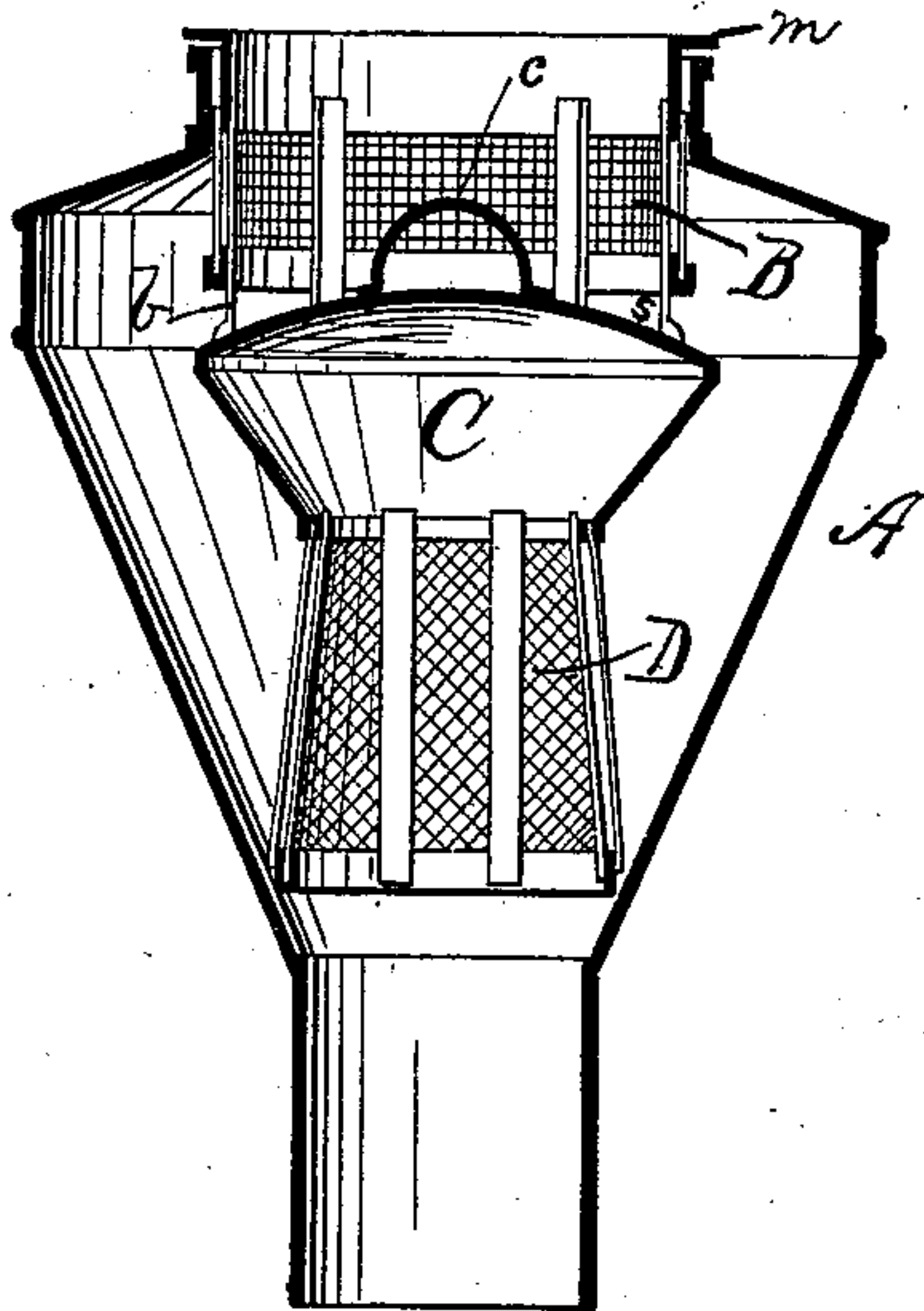
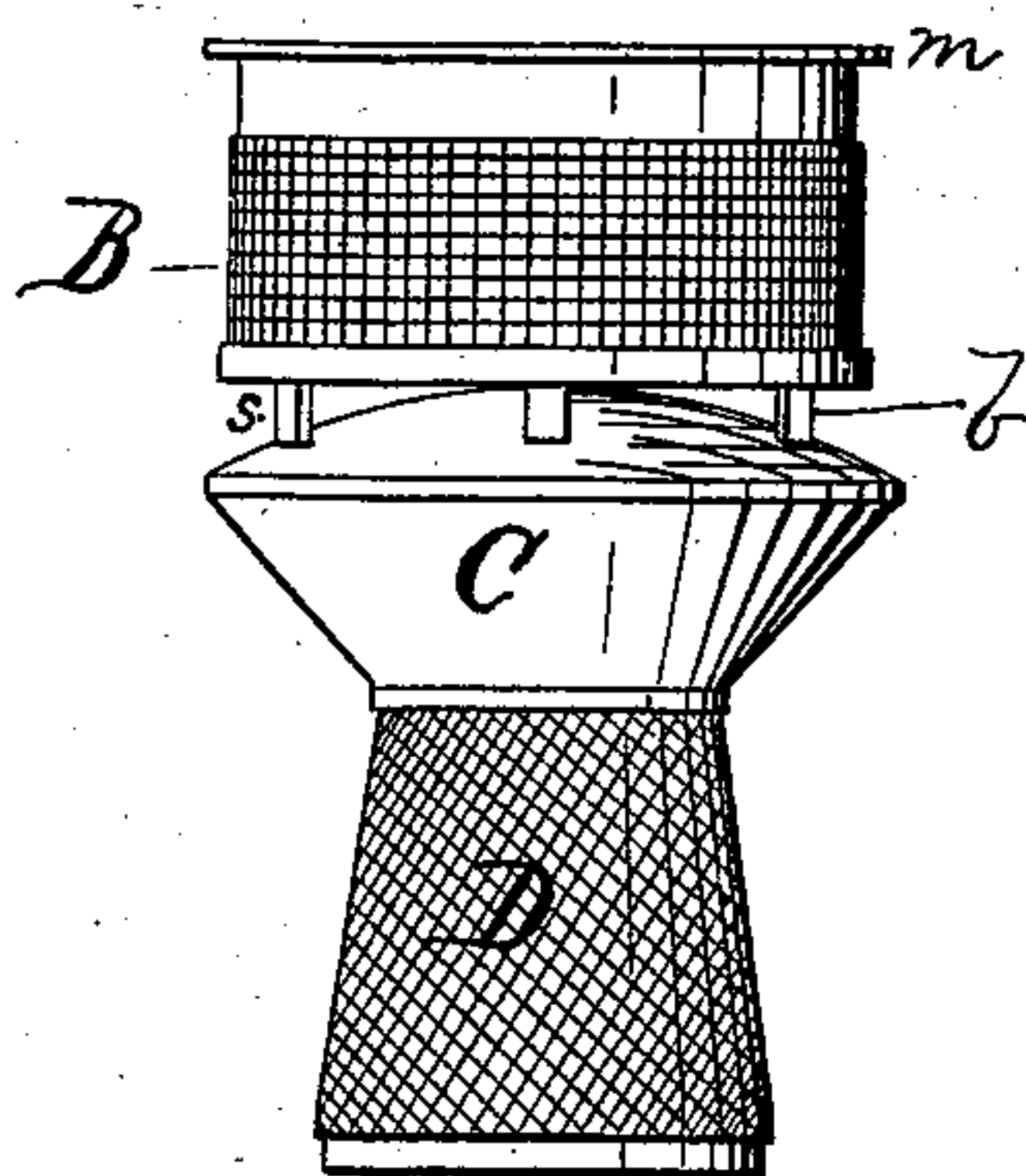


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

MEINRAD RUMELY, OF LA PORTE, INDIANA.

SPARK-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 227,656, dated May 18, 1880.

Application filed February 3, 1880.

To all whom it may concern:

Be it known that I, MEINRAD RUMELY, of the city and county of La Porte, and State of Indiana, have invented certain new and useful
5 Improvements in Spark-Arresters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to an improvement upon the spark-arrester shown in the patent to me dated August 19, 1879, and numbered 218,643. That patent shows a construction which I follow in this invention, except in the
15 particulars specified below, and the main feature of difference is this: the lower round screen is made of such diameter as to catch all the sparks, instead of the major part thereof, as in the prior construction.

20 In the accompanying drawings, Figure 1 is a central vertical section of a smoke-stack to which my improved arrester has been applied, and Fig. 2 is an outside elevation of the spark-arresting devices detached from the stack.

25 In said drawings, A represents the smoke-stack, and B the vertical cylindrical screen, placed at the mouth of the same. C is the imperforate inverted cone section, coinciding substantially at its top with the screen in di-
30 ameter, and forming a bottom to said screen.

I prefer to support the cone at a little distance below the screen by pieces *b*, so that an open space, *s*, is left under the screen; but this feature may be left to the judgment of the op-
35 erator, as the apparatus may be used without such opening.

The cone is provided with a handle, *c*, whereby the entire structure of spark-arresting devices, which is supported from the top by the

rim *m* upon the upper screen, may be lifted out 40 of the stack when it is desired to clean or repair it.

Depending from the cone-section is another cylindrical screen, D, which descends to the narrow part of the stack, forming a close junc- 45 ture therewith, so that all the sparks entering the stack are compelled to enter between the walls of said screen and find exit through the same. This feature is different from my previous patent, wherein an annular space is left 50 around the bottom of said screen, through which a considerable portion of the sparks found their way. The parts B, C, and D correspond, both in function and form, with the like parts shown in my said patent; but I find by actual test 55 that by lengthening or extending the lower screen so that it closes entirely all avenues of escape for the sparks except through its meshes the effectiveness of the apparatus is much in- 60 creased. I also dispense with the damper-opening in the top of the conic section shown in my former invention, as it proves to be unnecessary. It may, however, be used if thought 65 desirable.

I claim—

65 The combination, with a smoke-stack, of a cylindrical screen, B, the imperforate inverted cone section C, and the depending screen D, the latter being of such diameter as to join the interior sides of the stack, and the products of 70 combustion being admitted directly into the same, and all the parts being constructed and arranged substantially as set forth.

MEINRAD RUMELY.

Witnesses:

JOHN RICHTER,
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