

No. 735,945.

PATENTED AUG. 11, 1903.

F. T. CLARK.

DEVICE FOR EFFECTING THE RADIATION OF HEAT.

APPLICATION FILED JUNE 11, 1903.

NO MODEL.

Fig. 1

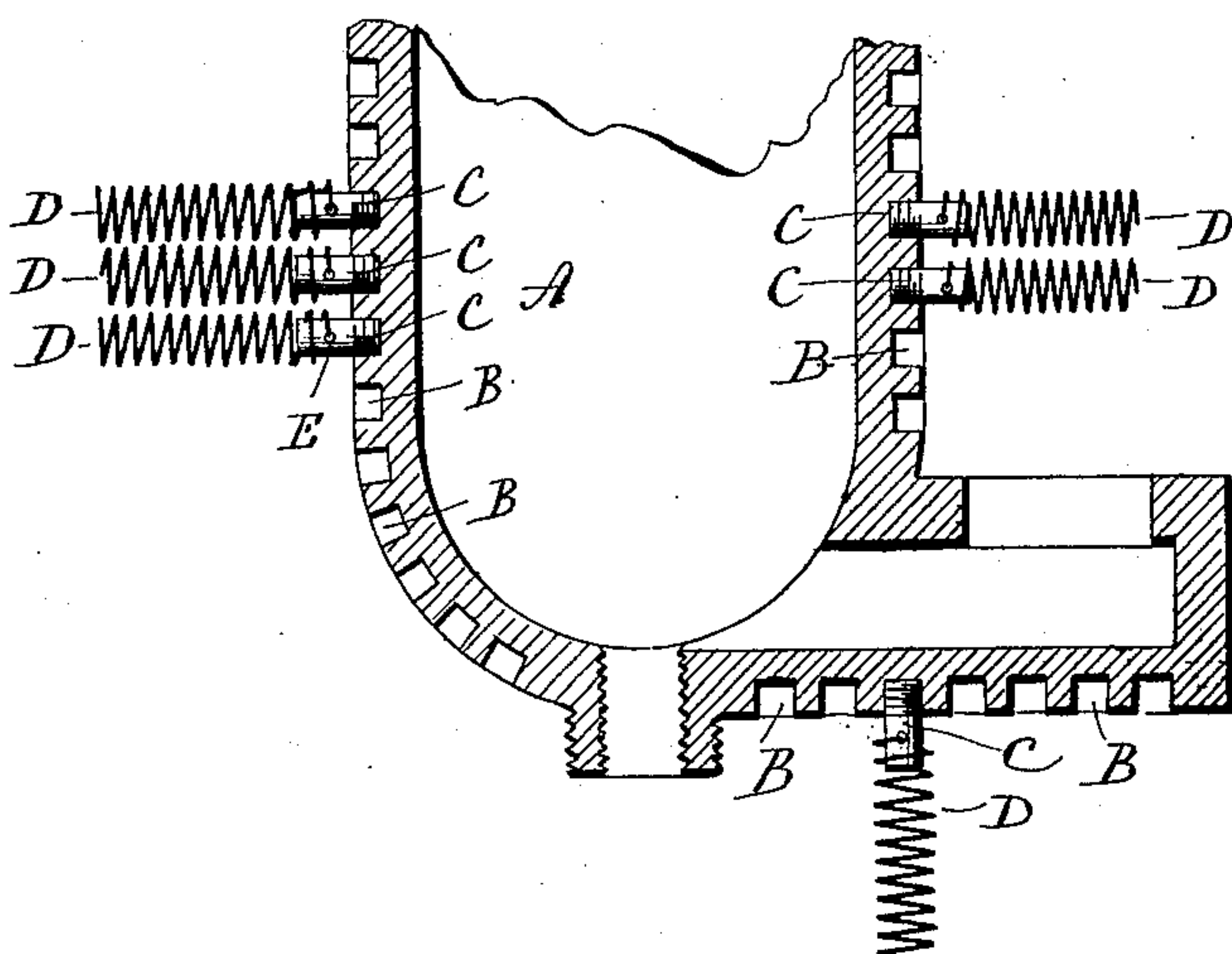
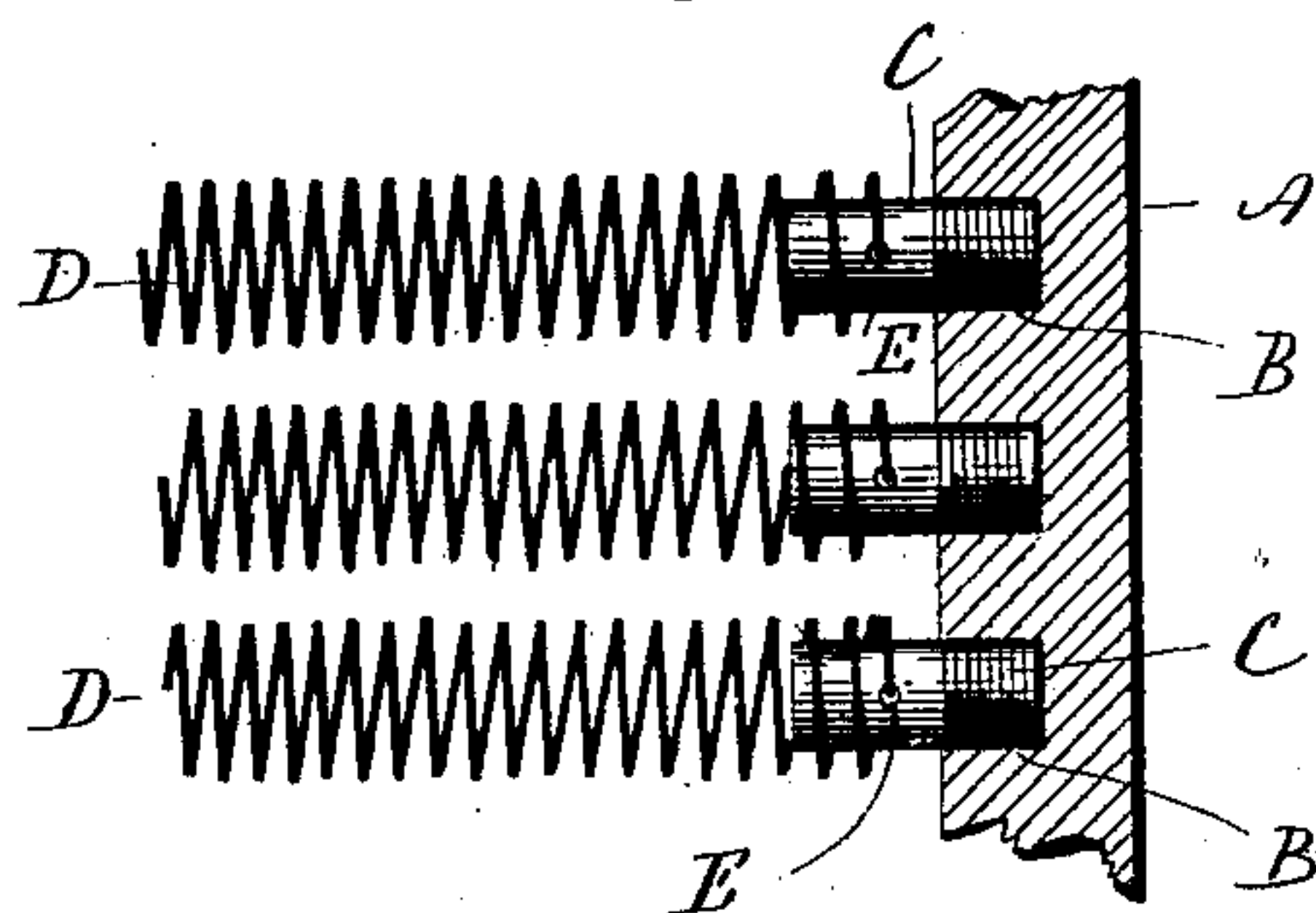


Fig. 2



Witnesses.
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UNITED STATES PATENT OFFICE.

FRANK T. CLARK, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO JOHN H. SPRINGER, OF NEW YORK, N. Y.

DEVICE FOR EFFECTING THE RADIATION OF HEAT.

SPECIFICATION forming part of Letters Patent No. 735,945, dated August 11, 1903.

Application filed June 11, 1903. Serial No. 160,966. (No model.)

To all whom it may concern:

Be it known that I, FRANK T. CLARK, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Devices for Effecting the Radiation of Heat; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a broken sectional view of a portion of a cylinder, showing a number of radiating springs secured therein; Fig. 2, an enlarged sectional view of a portion of a cylinder with three studs and springs connected therewith.

This invention relates to an improvement in devices for effecting the rapid radiation of heat and particularly in cylinders for motor-vehicles.

Various devices have been provided to effect the rapid radiation of heat; but such devices become coated with dirt, and not only is their effectiveness retarded, but they are extremely difficult to clean.

The object of this invention is to provide means for effecting the rapid radiation of heat and means which will of themselves be practically self-cleaning; and the invention consists in arranging pins or studs on the cylinder and connecting springs with those pins, as will be more fully hereinafter described, and particularly recited in the claims.

For the purpose of illustration I have shown a portion of a cylinder A, which may be of any approved construction and forming part of the engine-cylinder of common type. In the outer face of this cylinder are a number of recesses B, arranged in straight or staggered lines. These recesses are threaded to receive short studs C, which are threaded at their inner ends for entrance into the recesses B. Secured to each stud is a spiral spring D, which surrounds the projecting ends of

the studs and project for a considerable distance beyond them. These springs may be secured to the studs in any desired manner; but preferably one end of the coil will be passed through a hole E in the projecting end of the stud and the wire bent closely around the stud. The inner surfaces of these springs bear against the projecting ends of the studs, so as to be in contact therewith. These springs by vibrating not only increase the radiation of heat, but by their vibration throw off all particles of dirt which come in contact with them. By connecting the springs with studs the springs may be renewed as occasion may require without serious difficulty.

I am aware that pins have been mounted in cylinders to increase the radiating-surface. I am also aware that springs have been mounted in cylinders for this purpose, and therefore do not wish to be understood as claiming, broadly, such as my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a cylinder having a series of recesses in its outer surface, of short studs mounted in said recesses and spiral springs secured to said studs and projecting outwardly beyond the ends thereof, substantially as described.

2. The combination with a metal cylinder, of threaded recesses in the outer surface thereof, short threaded studs entered into said recesses the said studs having transverse holes in their projecting ends and spiral springs secured to said studs and projecting outwardly beyond the ends thereof, the inner ends of the springs passing through the holes in the studs, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK T. CLARK.

Witnesses:

FRED C. EARLE,
CLARA L. WEED.