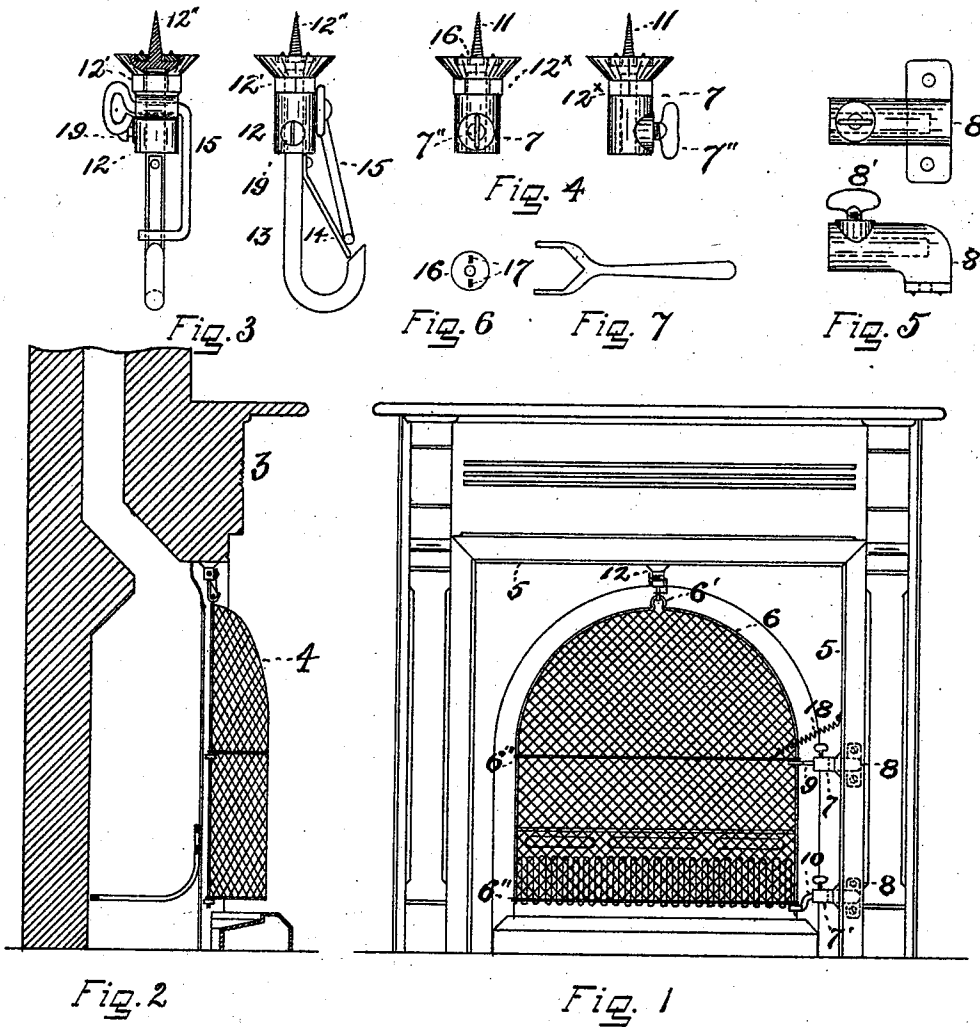


(No Model.)

B. A. ESTEP.
SPARK GUARD.

No. 498,108.

Patented May 23, 1893.



WITNESSES:

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INVENTOR.

UNITED STATES PATENT OFFICE.

BLAIR A. ESTEP, OF CHARTIERS, PENNSYLVANIA.

SPARK-GUARD.

SPECIFICATION forming part of Letters Patent No. 498,108, dated May 23, 1893.

Application filed March 3, 1893. Serial No. 464,554. (No model.)

To all whom it may concern:

Be it known that I, BLAIR A. ESTEP, a citizen of the United States, residing in Chartiers township, Allegheny county, State of Pennsylvania, have invented new and useful Improvements in Spark-Guards, of which the following is a specification.

In the accompanying drawings which form part of this specification, Figure 1 shows an elevation of a fire place and mantel-piece, with my improved spark guard mounted thereon; Fig. 2 a vertical section of Fig. 1; Fig. 3 a front and a side view of an adjustable hook to hold said spark guard in place in front of the fire place; Fig. 4 a front and side view of the sockets used to fasten the spark guard to the mantel-piece when there is sufficient depth of fire strip to accommodate the sockets shown in Fig. 4; Fig. 5 a top and side view of sockets used when there is insufficient room on the fire-strip to accommodate sockets shown in Fig. 4; Fig. 6 a disk used to prevent injury to mantel-pieces by screwing in sockets shown in Fig. 4, and Fig. 7 a wrench used to screw in sockets shown in Fig. 4.

Heretofore spark guards or fire screens have been constructed to wholly or partly inclose fire places, and have depended to retain their position in front of fire places upon support from the floor of the room in which they were used, or upon spurs fastened to them which passed over the grate-bar, or upon various devices which held them up to the mantel-piece, among others a hook and staple at both sides, but in all cases the main support has been afforded by the floor of the room in which they were used.

Spark guards held in position in the manner hereinbefore described are unstable in their position and easily overthrown and removed by children or other persons. The object of my present invention is to supply a spark guard or fire-screen, which when placed in front of a fire place cannot be jarred or readily overthrown from its position, being fastened in its place by devices contained within itself, and not being dependent upon the floor of the room in which it is used to support it in its position before the fire.

In the accompanying drawings 4 is the improved spark guard, which is constructed as

follows: Rod 6 is bent to conform to the shape of the opening of the fire place, with a loop 6' at the middle of its arch or bend. To rod 6 two bent rods, 6'' 6''' are fastened, and upon the frame thus made the wires forming the screen of the spark guard are woven in the manner shown, or in any other suitable manner. A rod 9 is bent around rod 6 in such manner that rod 6 will easily turn in the eye formed in rod 9 by bending it. Rod 9 should have sufficient length beyond the eye through which 6 passes to reach and enter socket 7. Another rod 10 is formed into an eye of such sizes as to readily pass over the end of rod 6 as shown in Figs. 1 and 2, and so that 6 may be turned in the eye thus formed. Rod 10 may be bent as shown in Fig. 1 so as to allow of socket 7' to be placed in a convenient position to accommodate fenders or other fire place furniture. It may be straight in case such furniture may be accommodated without bending it. Sockets 7 are formed and cast from metal in the shape shown or any other suitable shape, and are furnished with a screw 11 and a set-screw 7'', and are fitted at 12° so as to have a polygonal shape, so that they may be screwed into place by a wrench similar to one shown in Fig. 7. The base of 7 is counter-sunk so that disk 16 may be placed over the screw; disk 16 being perforated and having two spurs 17. The function of disk 16 is when placed over the screw of socket 7 to prevent abrasion of the surfaces of the mantel-piece by reason of the motion of socket 7 when being screwed into place. Where there is sufficient room on fire strip 5, sockets 7 are screwed into the position shown in the drawings or suitable position necessary to accommodate the circumstances in each particular case. The sockets being placed so as to accommodate the rods 9 and 10, those rods are inserted in the sockets, and fastened in place by the set screws of the sockets, so that the rod 6 of the guard 4 shall conform to the shape of the opening of the fire place.

Where there is not sufficient room to accommodate the sockets 7 on the fire-strip 5, sockets 8 which consist of a casting with a base provided with holes for screws or nails, and drilled so as to accommodate rods 9 and 10 of the guard 4 are used. They are placed

at any suitable point on the front of the mantel-piece to accommodate and receive rods 9 and 10 which are bent as occasion may require to bring the guard closely up to the fire-place.

12 is a hook which has a socket formed similarly to socket 7 being polygonal at 12' and a screw at 12''. It is also provided with a lug through which the bent lever 15 is placed, so as to rest upon spring 14 which is attached to hook 13, spring 14 being so fixed to 13 as to close the bend of the hook. Hook 13 is adjustable in its socket by means of set screw 19. Hook 12 is placed in the mantel-piece at a point directly above the middle of the arch of the fire-place and so as to be capable of receiving and retaining loop 6' of rod 6. After rods 9 and 10 have been placed in the sockets, and loop 6' has been received and retained by 12, and rods 9 and 10 fastened in their proper places by means of the set screws in sockets 7 and 7', a spiral spring 18 is fastened at one end to some point on the mantel-piece at one side of the point at which rod 6 passes through the eye of rod 9, and at the other end to some point on spark guard 4 at the other side of the point of passage of rod 6 through the eye of rod 9. The function of the spring 18 is to assist in holding the spark guard up to its place in the fire-place when in position, or when swung back away from the fire-place to hold it open.

To use my spark guard, after the same has been placed in position as hereinbefore de-

scribed so as to swing freely on rods 9 and 10, it is forced against bent lever 15 and spring 14 so that loop 6' is received and retained by 12. When in this position spring 18 tends to draw it close up to the opening of the fire place, and 12 will not release it until spring 14 has been pressed aside by bent lever 15, so as to allow of the passage of loop 6'. From this it will be seen that my improved spark guard is fast to the mantel piece and cannot, of its own accord, fall down, neither can it be disturbed nor thrown out of its proper position unless it is removed thence purposely.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of a spark guard having rod 6 which is provided with a loop 6'; and mounted on rods 9 and 10, adjustable in sockets, affixed to a mantel-piece, and a mantel-piece provided with a hook to receive and retain loop 6' of rod 6; said spark guard and mantel-piece being connected by a spiral spring at two points, one on said spark guard on one side of rod 6 on which said spark guard rotates and one on the mantel-piece on the other side of rod 6 substantially as described.

In testimony whereof I have hereunto set my hand and seal this 28th day of February, A. D. 1893.

BLAIR A. ESTEP. [L. S.]

Witnesses:

FRANK DENNIS,
J. S. CHILTON,
JNO. S. ROBB, Jr.