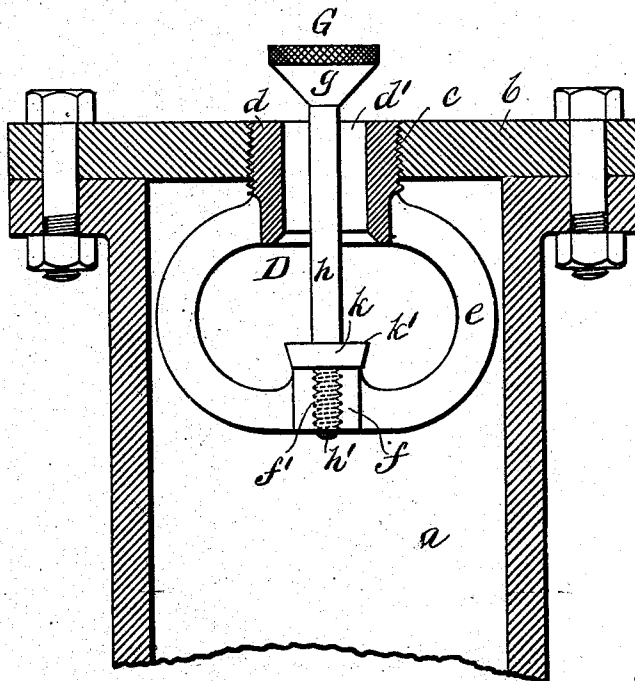


W. C. MATTHIAS.  
SPRINKLER.

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905,203.

Patented Dec. 1, 1908.



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Witnesses

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# UNITED STATES PATENT OFFICE.

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## SPRINKLER.

No. 905,203.

Specification of Letters Patent.

Patented Dec. 1, 1908.

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*To all whom it may concern:*

Be it known that I, WILLIAM C. MATTHIAS, a citizen of the United States, and a resident of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Sprinklers, of which the following is a specification.

My invention relates particularly to sprinkler mechanisms adapted for use in connection with sewage disposal apparatus, for the purpose of distributing liquid sewage over a large filtering surface through a series of sprinkler nozzles mounted upon symmetrically grouped distributing pipes; and it consists in the improved construction of the sprinkling devices, and in the manner of connecting the same to the pipe risers, as hereafter fully described in connection with the accompanying drawings and specifically pointed out in the claims.

The drawing is a sectional view showing a portion of a distributing pipe with sprinkler fitting attached, embodying my invention.

The distributing pipe or riser *a*, as shown, is provided with a separately formed cap-plate *b*, which is removably secured to the pipe *a* in any suitable manner, and which, while it forms no part of the sprinkler proper, serves as an advantageous means of attaching the latter as hereafter described.

The sprinkler fitting *D* comprises a cylindrical nozzle body *d* which is exteriorly screw-threaded to fit a central aperture *c* in the cap *b*; into which aperture said nozzle body is screwed from the under side of the cap so that the top of said nozzle is, preferably, flush with the top of the cap, and so that the fitting can only be removed after the cap itself has been disconnected from the pipe *a*. Forming part of the fitting *D*, and connected with the lower portion of the nozzle body *d* by wings *e*, is a transverse carrier-bar *f* for the sprinkler-plug hereafter described, said bar thus depending from the cap *b* within the pipe *a*, when the parts are assembled in operative position.

The sprinkler-plug *G*, which is formed with a spreader-head *g* of suitable shape as desired, has a stem *h* passing axially downward through the nozzle aperture *d'*; said stem being connected by means of its screw-threaded lower end *h'*, as shown, with a central aperture *f'* in the carrier-bar *f*, and hav-

ing a rigid collar *k* which seats upon said bar so as to positively locate the spreader-head *g* in determined position relative to the nozzle aperture *d'* to produce a desired spread of the passing liquid. This collar *k*, in addition to serving to properly locate the spreader-head of each sprinkler-plug of a series in determined uniform position as stated, is made to serve a further purpose of considerable practical importance; the occasion for such additional use arising from the ascertained fact that the nozzle apertures *d'* are apt to become clogged or obstructed by deposit of greasy or other adhering material from the passing liquid, sufficiently to objectionably affect the discharge. To provide for conveniently remedying this trouble, I form the collar *k* of a diameter adapted to loosely fit the nozzle aperture *d'*, and with a cutting edge *k'*, whereby the operator is enabled to quickly and thoroughly clear said nozzle orifice when required, by merely disconnecting the sprinkler-plug from the carrier-bar *f* and forcibly withdrawing it through the nozzle orifice so as to carry with it the obstructing material.

In order to properly maintain the sprinkler fittings it is necessary to make them of non-rusting material such as brass; and it becomes a matter of considerable importance, particularly in plants employing a large number of widely distributed sprinklers as in sewage disposal systems, to prevent the unauthorized removal of such parts. In my improved construction it will be seen that this is practically accomplished by connecting the sprinkler fittings to the pipe *a*, through the medium of the iron cap *b*, so that it can only be gotten at by first removing said cap; while at the same time the maintenance of the sprinklers in proper working condition is made easy by adapting the sprinkler-plug to serve as a cleaning means for the nozzle orifice as described, without requiring removal of the sprinkler fitting or access to the distributing pipe.

What I claim is:—

1. The combination with a riser-pipe having a removably secured centrally apertured cap, of a sprinkler fitting comprising a nozzle body removably secured to said apertured cap from the under side of the latter and provided with a depending transverse carrier-bar, and a sprinkler-plug having an axial stem the lower end of which engages

said carrier-bar and the upper end of which is provided with a spreader-head.

2. In a sprinkler, a nozzle body provided with a depending transverse carrier-bar, and  
5 sprinkler plug having a spreader-head and an axial stem with a lower end engaging said carrier-bar and a collar seating thereon, said collar being loosely fitted to the nozzle

aperture and adapted to serve as a cleaning device for the latter substantially as set forth. 10

In testimony whereof, I affix my signature, in the presence of two witnesses.

WILLIAM C. MATTHIAS.

Witnesses:

CHARLES R. WERNER,  
P. F. SCHOLL.