V. M. HAAS.

DRAFT DEVICE.

APPLICATION FILED FEB. 27, 1919.

1,377,475.

Patented May 10, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

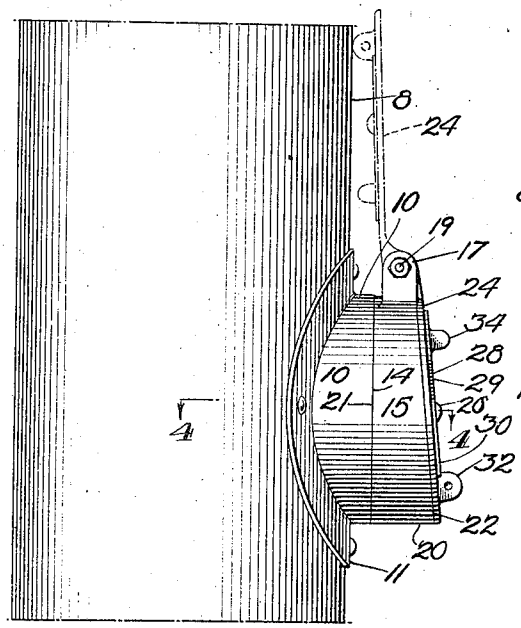


Fig. 2.

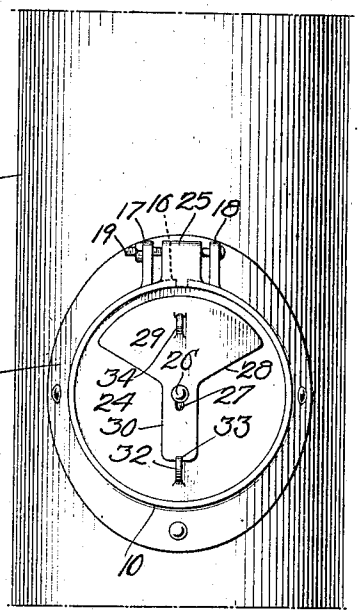
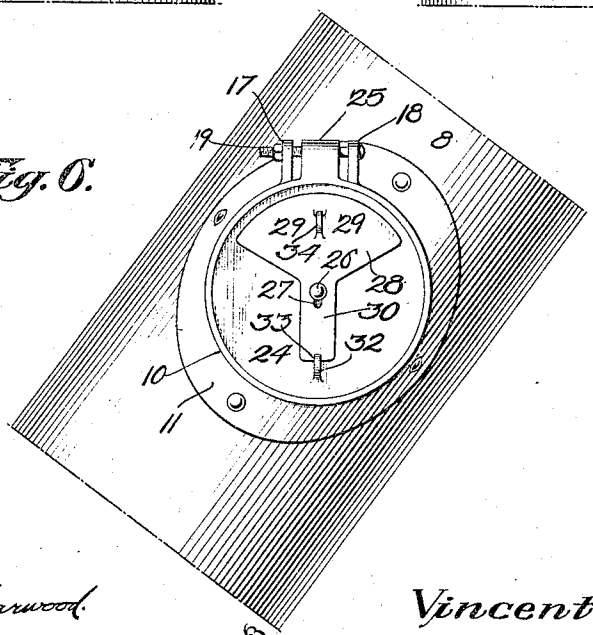


Fig. 3.



Witnesses

Horace P. Harwood.

Augustus B. Coppes

Inventor

Vincent M. Haas.

By Joshua R. H. Potts

His Attorney

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2 SHEETS—SHEET 2.

Fig. 3

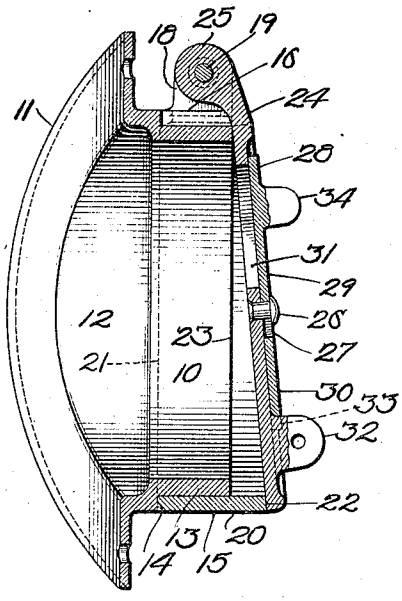


Fig. 5.

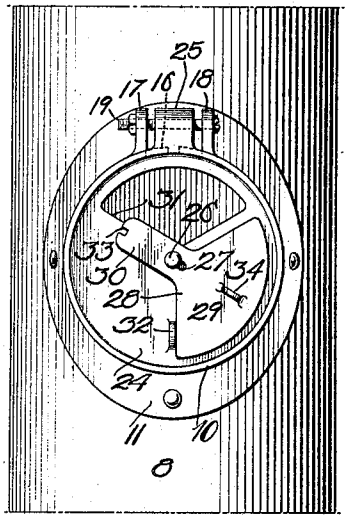


Fig. 4.

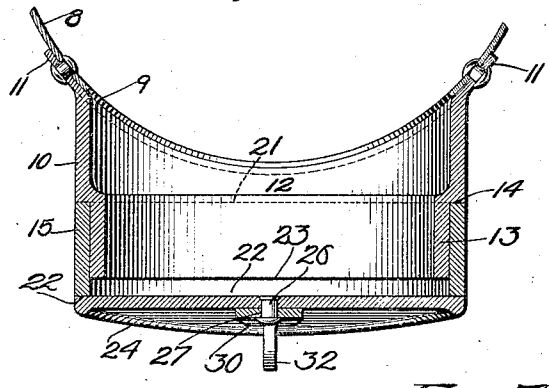
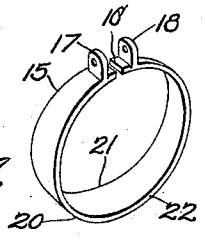


Fig. 7.



Witnesses

Horace P. Harwood.

Augustus B. Coppes

Inventor

By Vincent M. Haas.

Joshua R. H. Potts

His Attorney

UNITED STATES PATENT OFFICE.

VINCENT M. HAAS, OF PHILADELPHIA, PENNSYLVANIA.

DRAFT DEVICE.

1,377,475. Specification of Letters Patent. Patented May 10, 1921.

Application filed February 27, 1919. Serial No. 279,490.

To all whom it may concern:

Be it known that I, VINCENT M. HAAS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Draft Devices, of which the following is a specification.

One object of my invention is to provide a draft device which can be easily and quickly attached to smoke pipes of stoves, heaters and furnaces irrespective of the position or angle of said pipes.

Another object is to so construct the device of my invention that certain of the parts can be quickly and easily removed to provide a comparatively large opening into the smoke pipe to permit the latter to be thoroughly cleaned.

A further object is to include in my improved device draft-checking means which can be quickly and easily opened and closed, and when closed will not accidentally move out of its closed position or when it is in its open position will not accidentally move into its closed position.

A still further object is to make my improved draft device of a simple and durable construction and so that it will not require expert knowledge to attach the same to stove pipes or the like.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is a side elevation of a smoke pipe having my improved device thereon,

Fig. 2 is a front elevation of Fig. 1,

Fig. 3 is an enlarged central sectional elevation of the device of my invention,

Fig. 4 is an enlarged sectional view taken on the line 4—4 of Fig. 1,

Fig. 5 is a view of similar nature to that shown in Fig. 2 showing certain of the parts in another position,

Fig. 6 is a view of similar nature to Fig. 2 showing the position of certain of the parts when the smoke pipe to which it is attached extends at an incline instead of vertically as illustrated in Fig. 2,

Fig. 7 is a perspective view of a split collar or sleeve which forms a part of my invention.

Referring to the drawings, 8 represents a smoke pipe, such as the smoke pipe of any stove, range, heater or furnace and, as shown in Fig. 4, this pipe has a hole 9 cut therein. A cylindrical stub tube 10 has a flange 11 which is secured to the pipe 8 so that the internal passageway 12 of said stub tube registers with the hole 9 in the pipe 8. The stub tube 10 includes a cylindrical portion 13 which terminates in a shoulder 14. This portion 13 forms a bearing for a collar 15 which is split within its circumference, as shown at 16. The collar 15 has two ears 17 and 18 through which extends a bolt 19 so that by tightening said bolt the collar 15 will be clamped upon the portion 13. Further than this, said collar 15 is narrower at its portion from which project the ears 17 and 18 than at its portion 20 diametrically opposite the portion from which said ears project. The inner edge 21 of the collar is adapted to abut the shoulder 14 and occupies the plane at right angles to the axis of the collar. From the foregoing description it will be understood that the edge 22 of the collar 15 extends at an incline to the axis of the collar 15 as clearly shown in Figs. 1 and 3. In other words, the collar 15 tapers from its portion 20 to the portion from which the ears 17 and 18 project and said latter portion is at least equal to the distance between said shoulder 14 and the outer edge 23 of the portion 13. Thus the edge 22 of the collar 15 projects beyond the edge 23 of the portion 13 and extends at an incline to the axis of the collar 15.

A damper 24 has a tongue 25 through which the bolt 19 extends so that said tongue and bolt form a pivotal connection for the damper 24. The damper 24 is adapted to abut the edge surface 22 of the collar 15 and form a closure for the passageway 12. By having an edge surface extending at an incline as above described the damper 24, due to gravity, will press firmly against said edge surface 22 as shown in Figs. 1 and 3.

The damper 24 has a pivot pin 26 which extends through a slot 27 in a shutter 28. The shutter 28 has a fan-shape portion 29, and a comparatively narrow portion 30 oppositely disposed to the fan-shape portion 29. The damper 24 has an aperture 31 (see Figs. 3 and 5) adapted to be closed by the fan-shape portion 29 of the shutter 28. The damper 24 also has a lug 32 as shown in Figs. 2 and 6. It will thus be understood that the shutter 28 is adapted to turn on the pin 26 and is also permitted to slide to

the extent of the length of the slot 27. Thus if the shutter 28 is moved into a position so that its portion 29 covers the aperture 31 and slightly raised, the notch 33 can be brought into register with the lug 32 and when permitted to slightly drop, the notched portion of the part 30 will embrace the lug 32 and lock the shutter in its closed position. To facilitate the movement of the shutter as above described it is provided with a boss 34 which serves as a handle to permit the shutter to be swung on the pin 26 and also to be raised and lowered. It will be noted that when the shutter is in its closed position as shown in Figs. 2 and 6 that it can be opened by raising the shutter until the narrow end 30 clears the lug 32. After this the shutter can be swung until the portion 29 abuts the lug 32 as shown in Fig. 5.

By constructing my device as above described the stub tube 10 can be attached to a smoke pipe irrespective of the position or angle of the pipe. For example Figs. 1 and 2 show the stub tube 10 attached to a vertically extending smoke pipe while Fig. 6 shows the stub tube attached to an inclined stove pipe. In each instance, however, the portion of the collar 15 which has the ears 17 and 18 thereon, is at the extreme top so that the cover damper 24 swings in a vertical plane. I am enabled to do this for the reason that the collar 15 is free to turn on the portion 13 when the bolt 19 is loosened, while the flange 11 of the stub tube 10 occupies the same relative position to the pipe 8. In each of the positions shown in Figs. 2 and 6 there is a difference in the relative position between the damper 24 and the stub tube 10. In other words, when placing my improved apparatus upon an inclined pipe the collar 15 can be turned on the portion 13 until the ears 17 and 18 are at their uppermost possible position and the damper 24 is positioned to swing in a vertical plane.

The damper 24 can be swung on the bolt 19 as a pivot into the dot-and-dash line position shown in Fig. 1. When the damper 24 is raised in said latter position, access may be had to the interior of the smoke pipe 8 through the passageway 12 and there is nothing to obstruct an easy entrance to the smoke pipe for cleaning purposes. When the shutter 28 is opened the draft through the pipe 8 will be checked and if desired the entire damper 24 can be opened as above stated, either for the purpose of checking the draft or for the purpose of cleaning the smoke pipe.

It will be noted that the flanged portion 11 of the stub tube 10 is curved in cross section as shown in Fig. 4 so as to snugly embrace the smoke pipe 8.

While I have described my invention as taking a particular form, it will be understood that the various parts of my invention may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claim.

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

A device of the character described including a stub tube providing a draft passageway; a damper on said stub tube for closing said passageway, said damper having an aperture and a lug; a pivot pin on said damper; and a shutter having a slot through which said pivot pin extends to provide a movable bearing for said shutter, said shutter having a notched portion capable of embracing said lug, said shutter having a portion adapted to close said aperture when said notched portion is positioned to embrace said lug, said slot permitting the notched portion to be moved so as to clear said lug whereby the shutter can be moved out of closed position with said aperture; substantially as described.

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

VINCENT M. HAAS.

Witnesses:
CHAS. E. POTTS,
AUGUSTUS B. COPPES.