J. J. REILLY.

SMOKESTACK.

APPLICATION FILED JAN. 24, 1918.

1,325,376. Patented Dec. 16, 1919.

Fig. 1.

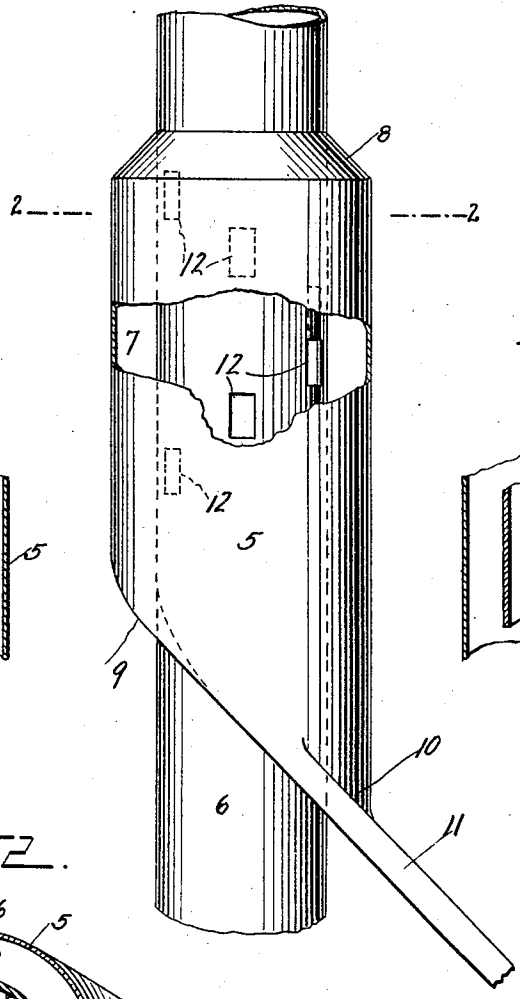


Fig. 3.

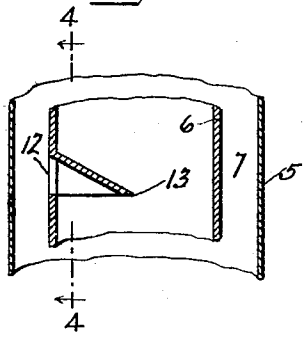


Fig. 4.

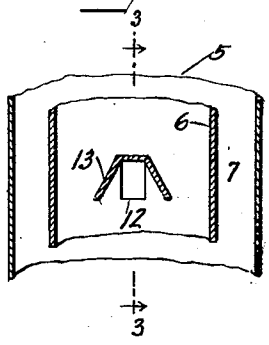
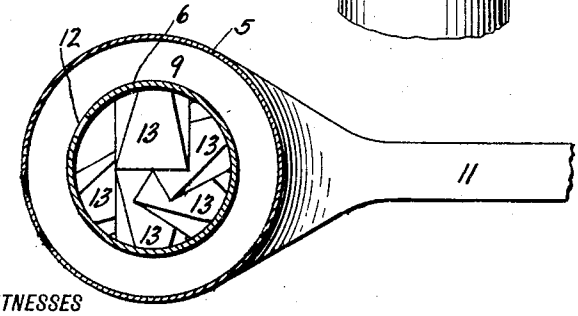


Fig. 2.



WITNESSES

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SMOKESTACK.

1,325,376. Specification of Letters Patent. Patented Dec. 16, 1919.

Application filed January 24, 1918. Serial No. 213,519.

To all whom it may concern:

Be it known that I, JAMES J. REILLY, a citizen of the United States, and a resident of Scranton, in the county of Lackawanna and State of Pennsylvania, have invented a new and Improved Smokestack, of which the following is a full, clear, and exact description.

My invention has for its object to provide a smoke stack which will collect soot and dust and deposit them in a receptacle without materially interfering with the draft of the furnace.

Additional objects of the invention will appear in the following specification in which the preferred form of my invention is described.

In the drawings, similar reference characters refer to similar parts in all the views, in which—

Figure 1 is a side elevation illustrating my improved smoke stack, a part being broken away to show the construction.

Fig. 2 is a plan view on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view on the line 3—3 of Fig. 4 and illustrating one of the hoods; and

Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

By referring to the drawings, it will be seen that a casing 5 is provided in which the stack 6 is disposed, the casing 5 being spaced from the stack 6 to form a passage 7. The upper end 8 of the casing 5 is inclined upwardly and inwardly to the stack 6 to close the top of the passage 7. The bottom of the passage 7 is closed by an inclined head 9, the lower end 10 of which is continued to form a chute 11 which may lead to a receptacle to collect the soot and dust.

There are a plurality of openings 12 which extend through the side of the stack 6, these openings 12 being arranged spirally as illustrated in Fig. 1 of the drawings. Within the stack 6 there are hoods 13, one for each of the openings 12, the hoods 13 being connected with the stack 6 at the top and at the sides of the said openings 12. The top of each hood 13 extends from the top of an opening 12 inwardly and downwardly, the sides of the top of the hood diverging away from the top of the opening.

It will be understood that when the smoke passes upwardly through the stack 6, it will strike against the hoods 13, the smoke having a tendency to move in a spiral which will assist in the movement of the soot and dust outwardly in the direction of the openings 12, the said soot and dust being trapped by the hoods 13 so that it will pass out through the openings 12 into the passage 7 and from thence to the head 9 which directs to the chute 11.

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

1. A casing, a stack disposed in the casing and spaced therefrom, the stack having an opening through its side, and an inwardly extending hood having depending sides secured at its top to the stack at the top of the opening.

2. A casing, a stack disposed in the casing and spaced therefrom, the stack having an opening through its side, and a hood having depending sides secured to the stack at the top and at both sides of the opening, the top of the hood being inclined downwardly and inwardly with its sides diverging from the top of the opening.

3. A casing, a stack disposed within the casing and spaced therefrom, the stack having an opening through its side, the top of the casing extending inwardly to the stack to close the passage formed by the stack and the casing, an inclined head at the bottom of the casing which extends around the stack and which is connected therewith, and a hood secured to the smoke stack above and at the sides of the opening and having its top inclined downwardly and inwardly.

4. A casing, a stack disposed within the casing and spaced therefrom, the top of the casing extending inwardly to the stack to close the top of the passage formed by the stack and the casing, the stack having an opening through its side, and a hood having depending sides secured to the stack at the top and at the sides of the opening, the top of the hood being inclined downwardly and inwardly and with its sides diverging from the top of the opening.

5. A casing, a stack disposed within the casing and spaced therefrom, the stack having a plurality of openings throughout spaced apart around its sides, hoods having depending sides extending inwardly and downwardly, one from above each opening in the stack, the top of the casing extending inwardly to the stack to close the passage

between the casing and the stack, and an inclined head at the bottom of the casing which extends around the stack and which is connected therewith.

6. A casing, a vertical stack disposed within the casing and spaced therefrom, the stack having a plurality of openings therethrough arranged spirally, a plurality of hoods, one extending inwardly at each opening in the stack, said hoods combined substantially extending throughout the cross sectional area of the stack and means connecting the bottom of the casing with the stack.

7. A casing, a vertical stack disposed within the casing and spaced therefrom, the stack having a plurality of openings therethrough arranged spirally, a plurality of hoods, one extending inwardly at each opening in the stack, the top of the casing extending inwardly to the stack to close the top of the passage formed by the stack and the casing, and an inclined head at the bottom of the casing extending around the stack.

8. A vertical casing, a stack disposed within the casing and spaced therefrom, the stack having a plurality of openings therethrough arranged spirally, and a plurality of hoods, one extending inwardly at each opening in the stack, the hoods being secured to the stack at their upper edges and at both sides.

9. A casing, a stack disposed in the casing and spaced therefrom, the stack having an opening through its side, and an inwardly and downwardly inclined hood having depending sides and secured at its top to the stack at the top of the opening.

10. A casing, a stack disposed in the casing and spaced therefrom, the stack having a plurality of spirally arranged openings through its side, and inwardly extending hoods having depending sides secured at their upper portions to the stack at the top of the openings.

11. A casing, a stack disposed in the casing and spaced therefrom, the stack having a plurality of spirally arranged openings through its side, and inwardly and downwardly inclined hoods having depending sides and secured at their upper portions to the stack at the top of the openings.

JAMES J. REILLY.