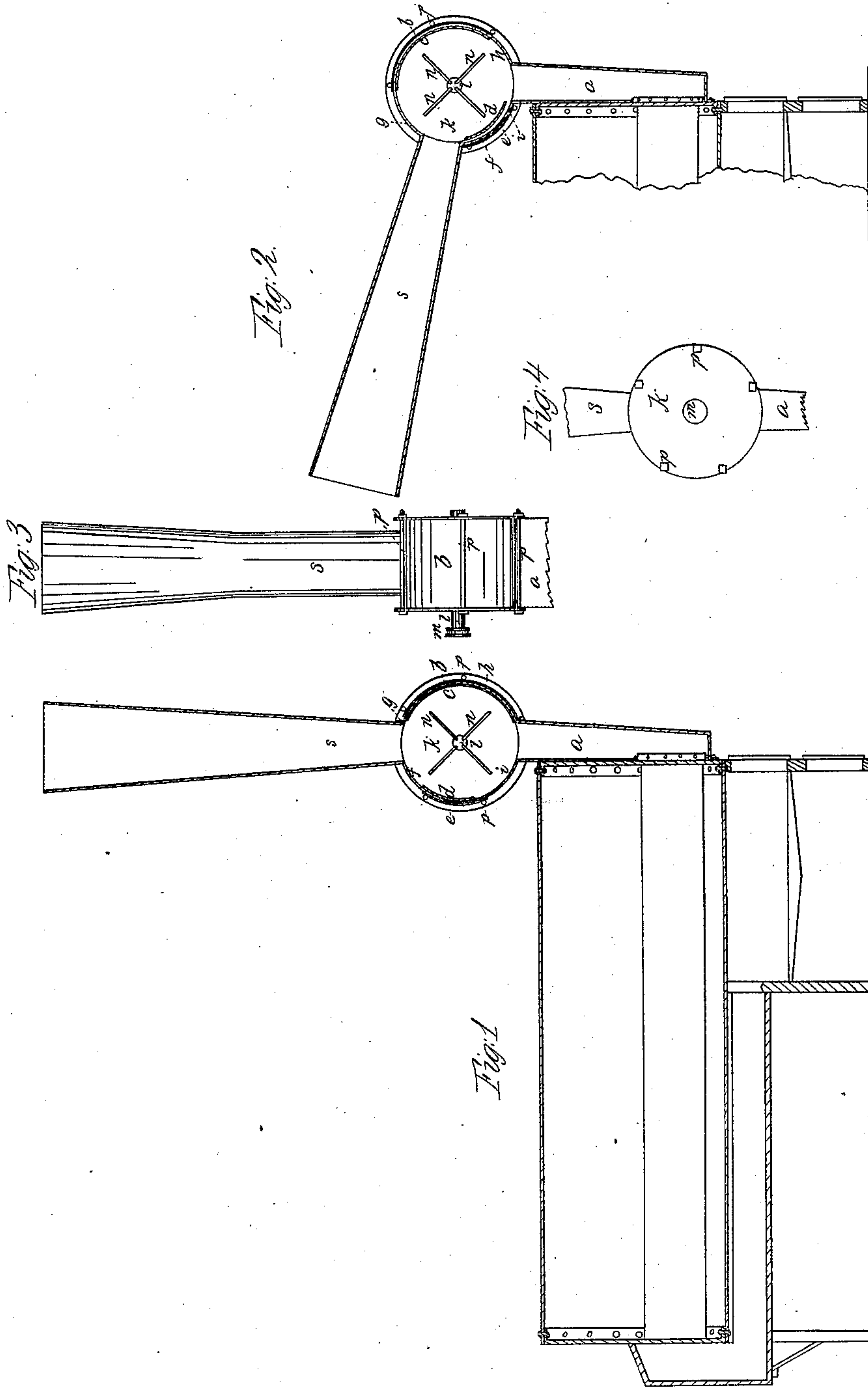


A. Fairchild,

Steam-Boiler Attachment.

N^o 12,385.

Patented Feb. 13, 1855.



UNITED STATES PATENT OFFICE.

ASAHEL FAIRCHILD, OF ASHLAND, OHIO.

IMPROVEMENT IN STEAM-BOILER CHIMNEYS.

Specification forming part of Letters Patent No. 12,385, dated February 13, 1855.

To all whom it may concern:

Be it known that I, ASAHEL FAIRCHILD, of Ashland, in the county of Ashland and State of Ohio, have invented a new and useful Improvement in the Chimneys of Steam-Boiler Furnaces; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in connecting a chimney to the smoke-conductor from the boiler-flues by means of a cylindrical joint of such size that it will admit of a fan being placed therein and so arranged as to admit of the chimney being lowered into a horizontal position without materially closing its area for the free discharge of the smoke.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of a double-flue steam-boiler having my improved arrangement of chimney combined therewith. Fig. 2 is a broken section of the same, showing the chimney in a horizontal position. Fig. 3 is a front view of the chimney detached, and Fig. 4 is a side view of the joint of the chimney.

Similar letters indicate like parts in all the figures.

A breeching or smoke-conductor, *a*, is secured to the front of the boiler (or boilers) and receives the forward ends of the boiler-flues in any well-known or usual manner. The chimney *s* is connected to the breeching *a* in the manner represented in Figs. 1 and 2, viz: The disks *k k* are connected to each other by means of the front segments, *b c*, the rear segments, *e d*, and the bolts *b p*. A segment, *h*, secured to the front side of the breeching *a*, is received between the said segments *b c*, and the segment *i*, secured to the rear side of the said breeching, is received between the aforesaid segments *d e*, and thereby the said disk and its connecting segments are connected to the breeching *a*. The chimney is connected to the said combined disks and segments by means of the segment *g*, which is attached to the front side of the bottom of the chimney, and is received between the

front segments, *b c*, and by the segment *f*, which is attached to the rear side of the bottom of the chimney and is received between the rear segments, *d e*. It will be perceived that the said segments *b c d e f g h i*, when combined with each other and with the disks *k k*, as above set forth, form a cylindrical connecting-joint between the chimney and the breeching *a*, and one which will allow the chimney to be turned down into a horizontal position without producing any openings in said joint and also without closing the communication between the chimney and the breeching *a*, as shown in Fig. 2. In turning back the chimney and lowering it to a horizontal position the disks *k k* turn until their rear outer connecting-segment, *e*, strikes against the rear side of the breeching, which arrests their movement; but the entrance of the rear chimney-segment, *f*, between the segments *d e*, and the partial withdrawal of the front chimney-segment, *g*, from between the segments *c b* allow the chimney to descend into a horizontal position.

The fan-blower *l n n*, placed within the cylindrical connecting-joint between the chimney and breeching, may be constructed in any well-known or usual manner and be driven by any suitable power.

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

Connecting the chimney of a steam-boiler furnace to the flue-connecting breeching thereof by means of a cylindrical joint arranged in such a manner that the chimney can be lowered into a horizontal position without producing openings in said joint and also without closing the connection between the chimney and the furnace-flues, substantially as herein set forth.

The above specification of my new and useful improvement in chimneys for steam-boiler furnaces signed and witnessed this 29th day of December, 1854.

ASAHEL FAIRCHILD.

Witnesses:

GEO. W. ADAMS,
Z. C. ROBBINS.