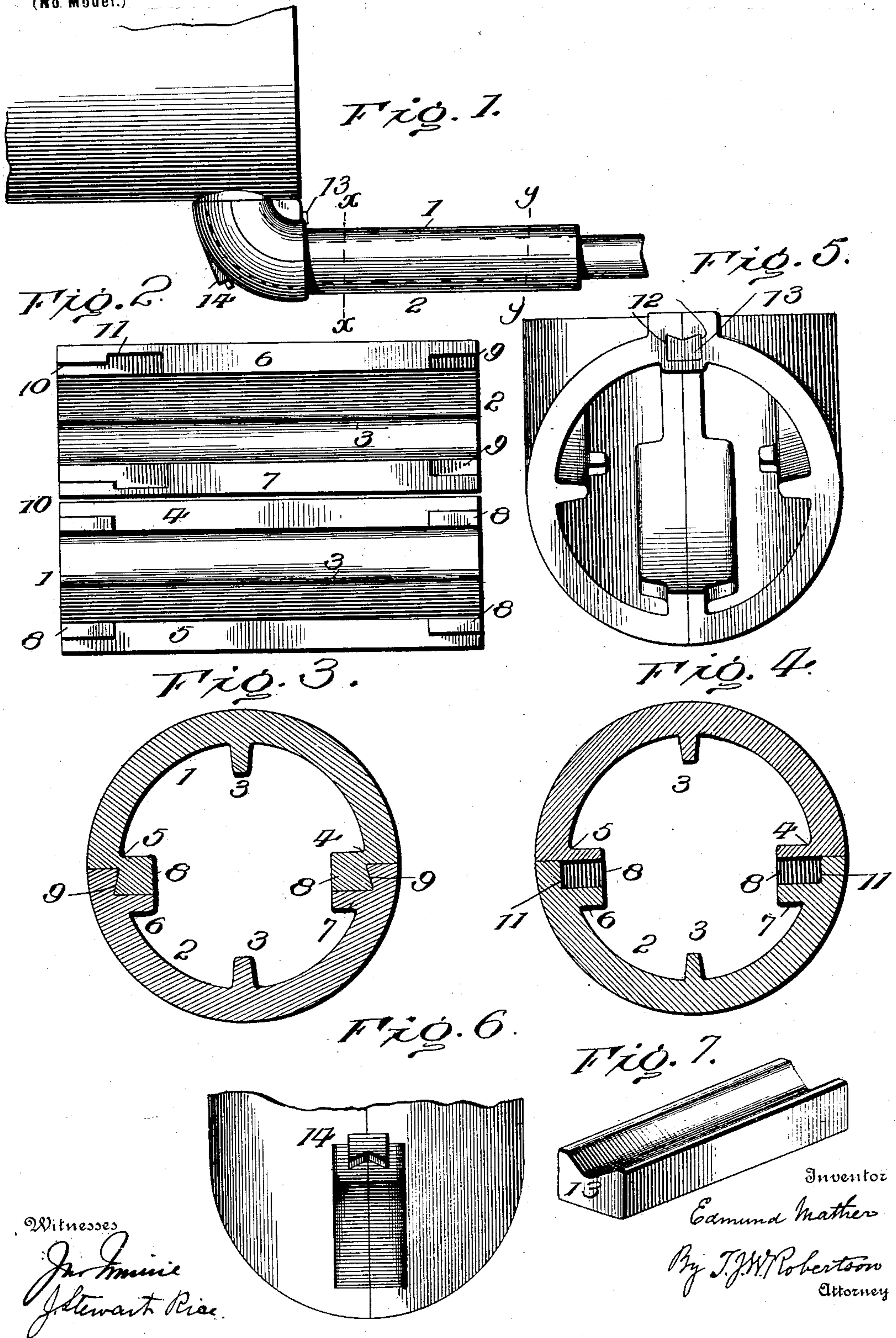


No. 630,386.

Patented Aug. 8, 1899.

E. MATHER.
BLOW-OFF PROTECTOR.
(Application filed May 26, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

EDMUND MATHER, OF HARRISBURG, PENNSYLVANIA.

BLOW-OFF PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 630,386, dated August 8, 1899.

Application filed May 26, 1899. Serial No. 718,435. (No model.)

to all whom it may concern:

Be it known that I, EDMUND MATHER, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented a certain new and useful Improvement in Blow-Off Protectors, of which the following is a specification, reference being had to the accompanying drawings.

It has been found that owing to the sediment collecting in blow-off pipes they very often burn out, and it has been therefore found necessary to provide them with a covering whereby they are protected from the full effects of the heated gases of combustion; and the object of my invention is to provide a blow-off pipe with a protective covering that can be easily applied to the pipe and easily removed for inspection or cleaning.

To these ends the invention consists in the peculiar construction hereinafter more particularly described and then definitely claimed at the end hereof.

In the accompanying drawings, Figure 1 is an elevation showing part of a boiler with my improvement attached, represented as having part broken away. Fig. 2 is a plan of the parts of the protective covering separated. Fig. 3 is a vertical cross-section through the line *xx* on Fig. 1. Fig. 4 is a similar section on the line *yy*, also on Fig. 1. Fig. 5 is an elevation of the elbow detached, showing one of the fastenings of the elbow. Fig. 6 is a detail showing the other fastening. Fig. 7 is a perspective view of a key used for fastening the elbow.

Referring now to the details of the drawings by numerals, 1 represents one section of the straight portion of the protector, and 2 the other section. Inside these sections are formed ribs 3, 4, 5, 6, and 7. These ribs form nests for the blow-off pipe and are designed to support the blow-off pipe in the center of the protector, thus forming an air-chamber all around the same. The ribs 4 and 5 are provided with projections 8, each having one inclined side, while the ribs 6 and 7 have recesses 9 and 10, the former being substantially the reverse of the form of the projections 8, so as to receive said projections when drawn together longitudinally and, owing to the inclined sides, hold the projections fast, as clearly shown in Fig. 3. The recesses 10 are formed

with the extensions 11, which have straight sides, so that the projections will readily enter the same, and then by giving one of the sections a slight longitudinal movement the two parts are safely locked together, and a reverse movement of the pieces will of course unfasten them. The elbow is also formed in two pieces and with ribs inside, as in the pipe. Two of these ribs have recesses 12, each having one inclined side, so that when the key 13 is driven in it firmly binds the two parts together on that side. The ribs on the other side of the elbow have projections 14, extending outside the elbows, in which are formed recesses similar to the recesses 12 and which receive a similar key to hold that side of the elbow.

From this description and the drawings it will be seen that I have produced a blow-off-pipe protector that can be easily set upon the same, even on pipes that are now in use, and that such protector can be readily removed for inspection and as quickly replaced.

It is evident that in lieu of the ribs other internal projections may be used; but I prefer the ribs, as shown.

What I claim as new is—

1. A metallic protector for a blow-off pipe divided longitudinally, and having recesses formed in one part to receive fastening devices formed on the other, substantially as described.

2. A protector for a blow-off pipe, divided longitudinally, and provided with internal ribs and locking devices formed in said ribs, substantially as described.

3. An elbow for a blow-off-pipe protector, divided longitudinally, and having recesses 12 formed in its opposite sides in combination with the keys 13 constructed to draw the edges together, substantially as described.

4. A metallic protector for a blow-off pipe, comprising a tube and an elbow each divided longitudinally and provided with internal projections and fastening means formed in said projections, substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 23d of May, 1899.

EDMUND MATHER.

Witnesses:

R. S. CARE,
ALFRED PAGET.