Oct. 10, 1933. J. B. HUGLEN 1,930,201

AIR INTAKE MANIFOLD FOR USE ON DIESEL ENGINES

Filed July 1, 1932 3 Sheets-Sheet 1

Fig. 1

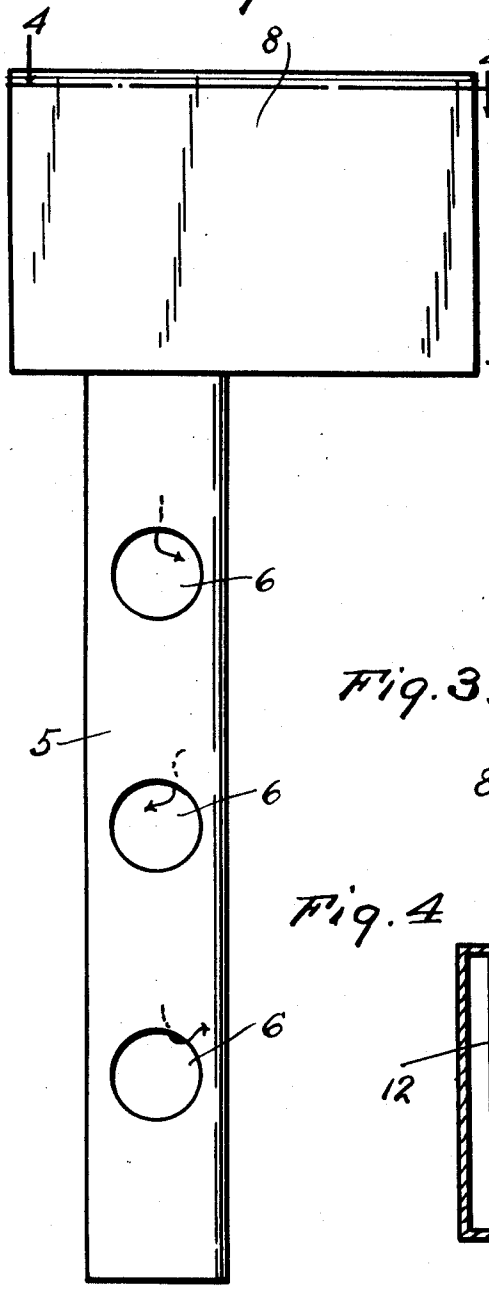


Fig. 2

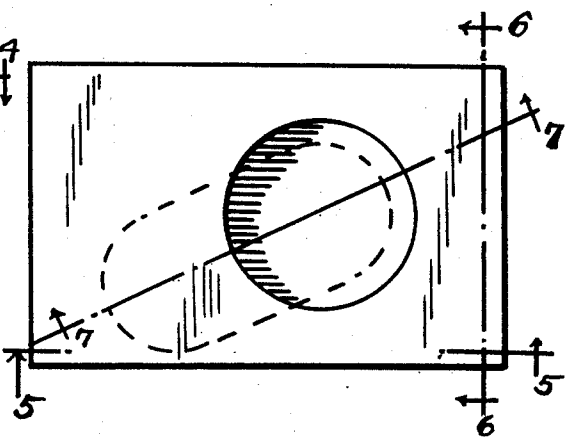


Fig. 3.

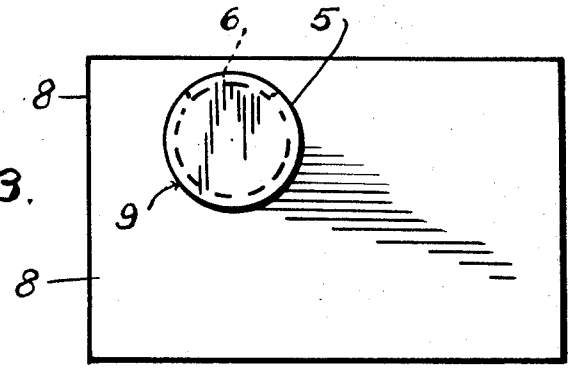
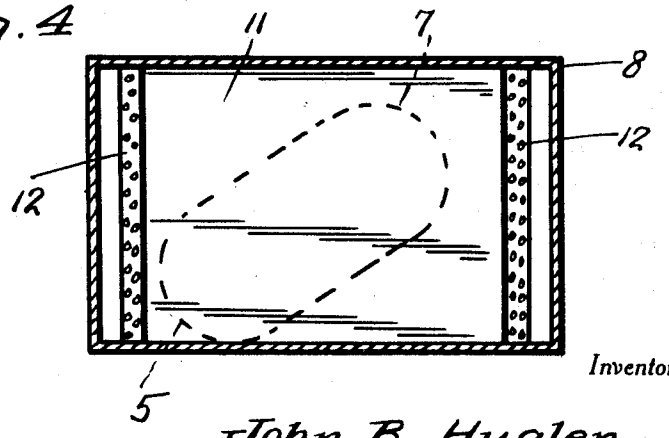


Fig. 4



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AIR INTAKE MANIFOLD FOR USE ON DIESEL ENGINES

Filed July 1, 1932 3 Sheets-Sheet 2

Fig. 5.

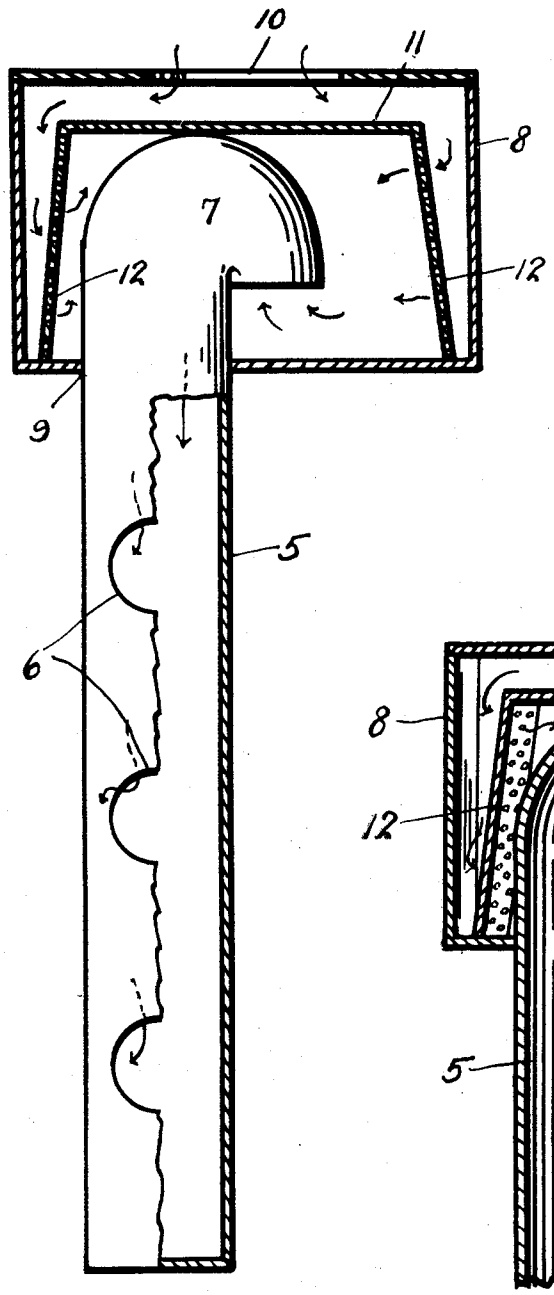
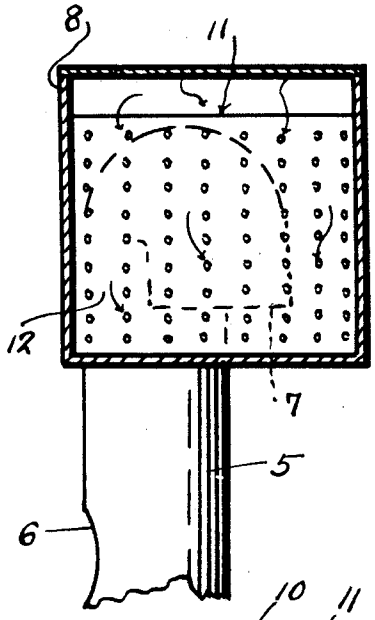


Fig. 6.



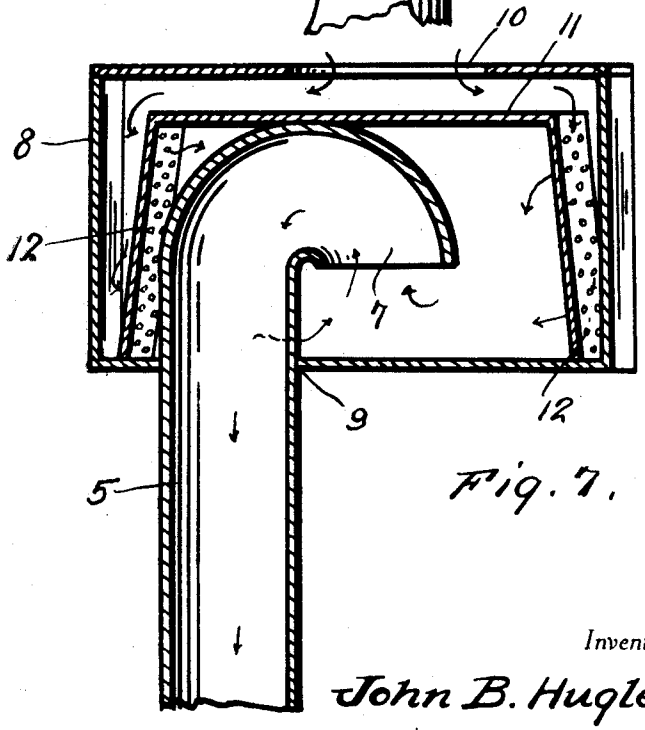


Fig. 7.

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AIR INTAKE MANIFOLD FOR USE ON DIESEL ENGINES

Filed July 1, 1932 3 Sheets-Sheet 3

Fig. 8.

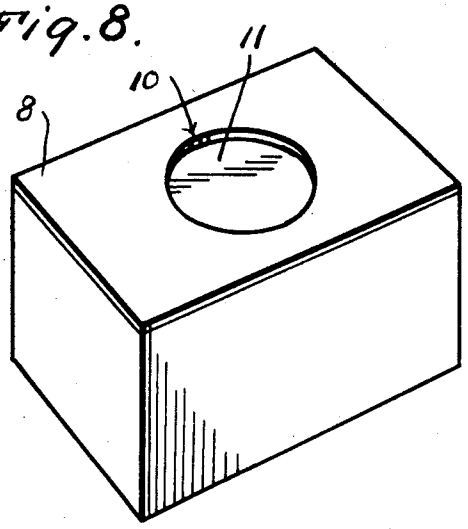
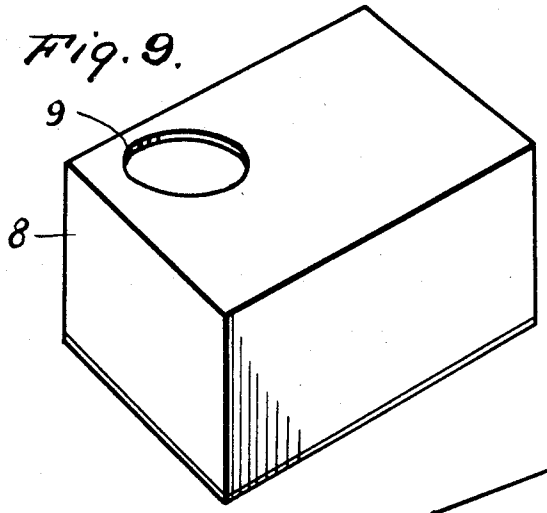


Fig. 9.



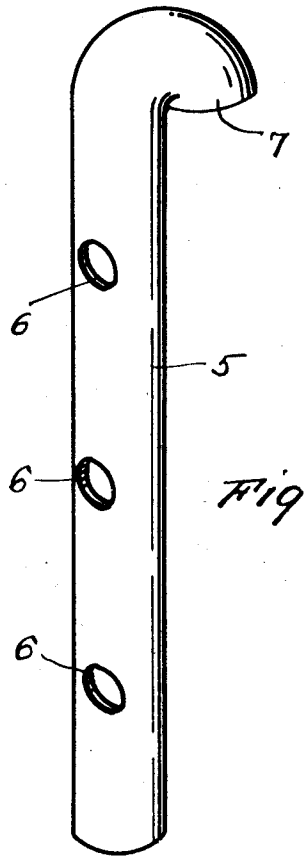


Fig. 10.

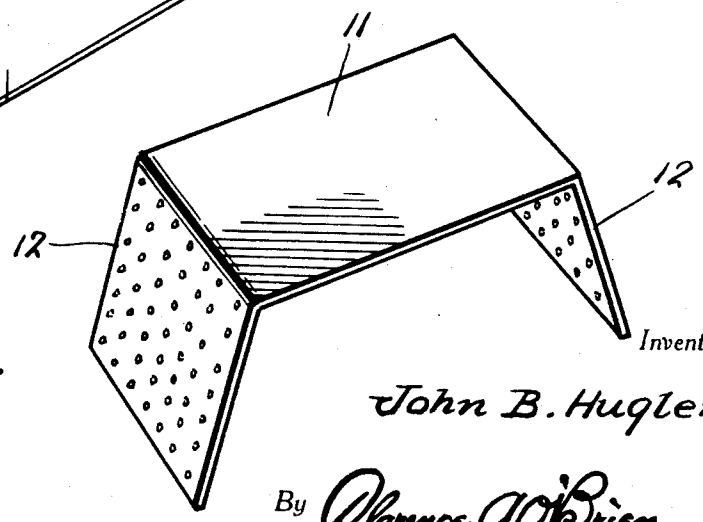


Fig. 11.

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UNITED STATES PATENT OFFICE

1,930,201

AIR INTAKE MANIFOLD FOR USE ON DIESEL ENGINES

John B. Huglen, Mount Vernon, N. Y.

Application July 1, 1932. Serial No. 620,497

4 Claims. (Cl. 137—160)

The present invention relates to an air intake manifold for use on Diesel and all internal combustion engines and has for its object to provide means for reducing to a minimum all noise from pistons, valves and air suction.

Another very important object of the invention resides in the provision of a combined air intake manifold and silencer of this nature which is exceedingly simple in construction, inexpensive to manufacture, strong and durable, thoroughly efficient and reliable in use and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention consists in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

Figure 1 is a side elevation of a device embodying the features of my invention.

Figure 2 is an end elevation thereof.

Figure 3 is another end elevation thereof taken oppositely to that shown in Figure 2.

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 1.

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 2.

Figure 6 is a sectional view taken substantially on the line 6—6 of Figure 2.

Figure 7 is a sectional view taken substantially on the line 7—7 of Figure 2.

Figure 8 is a perspective view of the casing particularly showing the top thereof.

Figure 9 is a perspective view of the casing particularly showing the bottom thereof.

Figure 10 is a perspective view of the elbow, and

Figure 11 is a perspective view of the partition and baffle.

Referring to the drawings in detail it will be seen that numeral 5 denotes an elongated manifold with the usual openings 6 to lead air into the Diesel engine. On one end of this manifold 5 is an elbow 7. A box like structure 8 is provided on its bottom side with an opening 9 in one corner thereof through which the manifold 5 extends with the elbow 7 interiorly of the box like structure. The top side of the box like structure is formed with a centrally located opening 10. Inside the box like structure is a combined baffle and partition consisting of a rectangular perforated plate 11 having obliquely extending perforated plates 12 on the ends thereof divergent downwardly from each other. This combined baffle and partition is mounted inside the box like structure extending from one side to the other as clearly illustrated in Figures 4 and 6 with the plate 11 between the elbow and the top of the box like structure and the elbow being disposed between the end plates 12, these end extensions being positioned in spaced relation inwardly with respect to the ends of the box like structure 8 and therefore the air must enter through the opening 10 and be deflected by the plate 11 so as to pass down between the ends of the box like structure and the perforated extensions 12 so as to pass through the perforations thereof and then to pass into the elbow 7 and manifold 5. The manifold and silencer is constructed of compressed rubber or like material. In actual practice it has been found to effectively reduce to a minimum all noise from pistons, valves and air structures usually incident to the operation of a Diesel engine.

It is thought that the construction, operation, utility and advantages of this invention will now be quite apparent to those skilled in this art without a more detailed description thereof.

The present embodiment of the invention has been described in considerable detail merely for the purposes of exemplification since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

It will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

1. In a device of the class described, and in combination, an air intake member having an elbow on one end thereof, a box like structure on said one end of the member to house the elbow and having an opening on the side remote from the member, a plate extending partially across the box like structure between said elbow and the side having the opening, and perforated plates extending angularly from the ends of the plate one to each side of the elbow.

2. In a device of the class described, and in combination, an air intake member having an elbow on one end thereof, a box like structure on said one end of the member to house the elbow and having an opening on the side remote from the member, a plate extending partially across the box like structure between said elbow and the side having the opening, and perforated plates

extending angularly from the ends of the plate one to each side of the elbow, said extensions diverging from each other.

3. In a device of the class described, and in combination, an air intake member having an elbow on one end thereof, a box like structure on said one end of the member to house the elbow and having an opening on the side remote from the member, a plate extending partially across the box like structure between said elbow and the side having the opening, and perforated plates extending angularly from the ends of the plate one to each side of the elbow, said extensions diverging from each other, said plate and said extension extending across the box like structure.

4. A device of the class described including a box like structure having one wall formed with a central opening and an opposite wall formed with an opening in the corner thereof, an intake member extending through the latter opening and terminating interiorly of the box like structure and having an elbow, a plate in the box like structure and extending between the first mentioned opening and the elbow and having perforated end plate one to each side of the elbow and spaced inwardly from end walls of the box like structure.

JOHN B. HUGLEN.