

M. KARMINSKI & C. PETERS.

ALARM.

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1,031,272.

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Fig. 1.

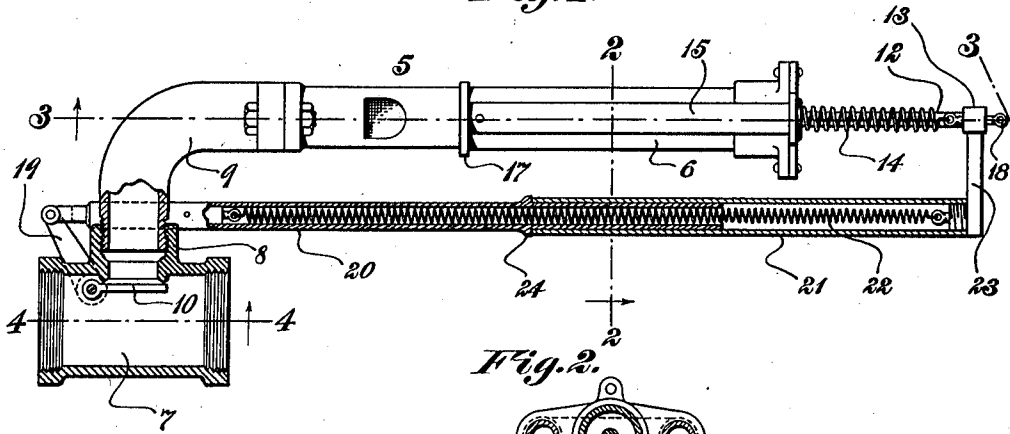


Fig. 2.

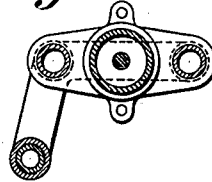


Fig. 3.

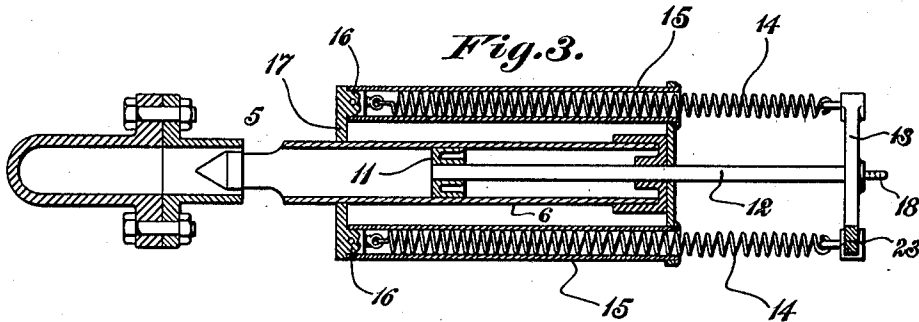
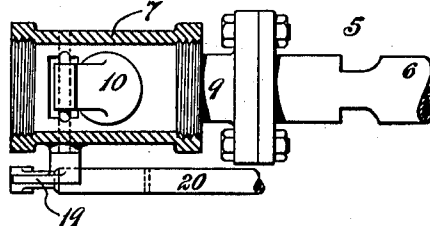


Fig. 4.



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ALARM.

1,031,272.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, MAXIM KARMINSKI and CHARLES PETERS, subjects of the Emperor of Germany, residing at Thompsonville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Alarms, of which the following is a specification.

This invention relates to alarms, and an alarm involving our invention can be used with utility in many different ways.

Some of the uses of the alarm are as part of an automobile equipment, on ship board and on vehicles of various kinds.

One of the primary purposes of the invention is to provide in combination with an audible alarm, means for varying the tone of said alarm.

We do not restrict ourselves to any type of alarm, but a whistle has been found satisfactory, and we may employ in connection with this whistle a slide for changing the tone and a device of this kind is very effective. The sound of the alarm may be obtained in different ways, for example, when the same is employed in connection with an automobile the exhaust may be utilized for operating said alarm.

In the drawings accompanying and forming part of the present specification we have shown in detail one convenient form of embodiment of the invention which, to enable those skilled in the art to practice the same, will be set forth in detail in the following description, while the novelty of the invention will be included in the claims succeeding said description. From such statements it will be apparent that we do not restrict ourselves to the disclosure made by said drawings and description, as we may depart therefrom in several respects within the scope of our invention included in said claims.

Referring to said drawings: Figure 1 is a side elevation of an alarm involving our invention showing certain adjunctive devices thereof in section. Fig. 2 is a cross section on the line 2—2 of Fig. 1. Fig. 3 is a longitudinal section on the line 3—3 of said Fig. 1; and, Fig. 4 is a section on the line 4—4 of said Fig. 1.

Like characters refer to like parts throughout the several figures.

From the observations already made, it will be evident that we do not restrict ourselves to any particular form of alarm. That shown is denoted in a general way by 5, and it consists of a whistle, and while various means may be employed for changing the tone of said whistle, a slide as will hereinafter appear, answers satisfactorily our requirements in this direction, said whistle having an extension 6 to receive said slide. As there is nothing novel in the whistle itself, it is not necessary for us to describe the same. While, as intimated, the whistle may be operated in divers ways, we would preferably when the same is carried by an automobile, use the exhaust from the engine or motor thereof for this purpose as will now appear. We may connect with the muffler or other part of an automobile a pipe 7, said pipe having between its ends the branch 8 to which is connected a tube 9. As will hereinafter appear the exhaust from the engine enters what is shown as the right side (Fig. 1) of the pipe 7 and normally passes from the opposite side thereof. At intervals, however, or when the alarm is to be sounded, the exhaust can be diverted or directed into the tube 9 and therefore into the whistle 5 for operating the latter. The pipe 7 with its branch 8 constitutes practically a tee coupling and the inner open end of the branch 8 presents, as will be evident, a port opening into the tube or duct 9, this port being controlled by a valve as 10. While the valve is shown as being of flap type, this is not a matter of consequence as one of some other kind might be utilized equally as advantageously. The valve 10 is shown closed in Fig. 1, this being its normal position so that the exhaust from the automobile engine or other part, can freely pass through the discharge pipe 7. When, however, the whistle is to be operated the valve 10 will be opened, so that the fluid, such as spent gases, can pass from the pipe 7 into the tube 9 and whistle 5 to sound the same.

In the tubular extension 6 of the whistle, we have shown a piston or plunger 11 which is capable of sliding therein and which is provided with an outwardly extending stem 12 projecting through the outer closed end of said tubular extension 6. To the outer end of the stem or rod is illustrated rigidly

connected the cross head 13 to the opposite ends of which are connected retracting springs 14, said springs being preferably partially inclosed by tubes 15. The inner ends of the tubes 15 are fitted around bosses or projections 16 extending outward from the cross piece 17 rigidly connected between its ends to the whistle 5, the inner ends of the springs 14 being united with said cross piece 17 or to the projections 16 thereon. It will be apparent at once that if the whistle 4 be sounded for instance by the direction thereinto of spent hydrocarbon gases or otherwise, and if simultaneously the slide or piston 11 be drawn out or toward the right in Fig. 3, a variable tone will be sounded. The slide 11 is shown occupying its normal position in said Fig. 3, stop means, as will hereinafter appear, being provided to prevent further inward motion of said slide. When the piston 11 is pulled out in the manner indicated, the springs 14 will be elongated, and when the piston is released, the said spring by contracting will at once return said piston to its primary position. Various means may be provided for pulling out the said plunger or piston to effect the variation in tone. The outer end of the stem or rod 12 is shown having an eye 18 to which a suitable connection may be united and generally this connection will be operated from some manually-controlled device after the usual fashion.

We prefer to provide in connection with the whistle means for opening the valve 10 practically at the instant the piston 11 commences its operative or advance stroke which in the present instance is outward whereby the desired effects can be instantly obtained, and of course various devices may be provided for this purpose and for also as we prefer doing, deferring the closing of the valve until the piston has practically reached its original position so that during the latter stage of action the whistle will be given a variable tone but opposite to that first sounded. While we set forth these conditions as preferable, we are not restricted to them.

We will now describe the means shown for securing the functions in question. To the shaft of the valve 10 is shown rigidly connected an arm 19, the outer end of which is connected for example pivotally to the tubular section 20. In telescopic relation with said tubular section 20 is a second tubular section 21, the two presenting an elongatable casing or housing for the inclosed spring 22, one end of which is rigidly connected with the tubular section 20 near the inner terminal end thereof, while the other end of said spring is connected with the lateral projection 23 of the cross head 13, the tubular section 21 being also rigidly connected

with said projection 23 for instance and as shown by a screw threaded joint. On the tubular section 20 is an annular shoulder 24 constituting suitable stop means and normally abutted by the inner end of the tubular section 20, so as to maintain the slide 11 in its normal position, said shoulder 24 acting suitably as the stop means to which we have already referred. When the piston 11 is in normal position, it will be understood that the valve 10 is closed.

It will be clear from the described connections that the instant the piston 11 is moved outward the valve 10 will be simultaneously opened, and owing to the elongatable connection between the valve and the piston, the piston can move a considerable distance after the valve has been opened without affecting the latter. Said valve will preferably not be closed until the tubular section 21 strikes the stop 24, this result being caused by the springs 14 during their piston-retracting action, it being obvious that said valve 10 will not be closed until the piston 11 is almost in its initial position.

What we claim is:

1. The combination of a whistle, a tone changing device for the whistle, a valve for normally preventing the admission of fluid to the whistle, a spring operatively connected with the tone changing device and with the valve, said spring being adapted on the initial advancing movement of the tone changing device to open said valve and to permit the continued advancing movement of said tone changing device without further affecting said opening movement, and a telescopic connection also between the valve and tone changing device, adapted to elongate on the advancing movement of the tone changing device, and one member of said telescopic connection being adapted to operate the other when said tone changing device has practically reached its initial position to thereby positively close the valve.

2. The combination of a whistle, a valve for normally preventing the flow of fluid to the whistle, a reciprocatory tone changing device for the whistle, a telescopic tubular rod, one section of which is connected with the tone changing device for movement therewith, and the other section of which is connected with said valve for movement therewith, the latter section having a stop engageable and operable by the companion section, and a spring inclosed in said telescopic rod and connected with the valve and tone changing device respectively.

3. The combination of a whistle, having a tubular extension, a piston slidable in said extension and provided with a rod, a cross head connected with said rod, spring means connected with the cross head for retracting the piston, an arm connected with said cross

head, means for directing a fluid into said
whistle for operating the same, a swinging
valve for controlling the flow of the fluid, an
arm rigidly connected with said valve, a
5 telescopic tubular rod, the sections of which
are respectively connected with said arms,
and a spring inclosed in said rod and con-
nected with the sections thereof.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

MAXIM KARMINSKI.
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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
