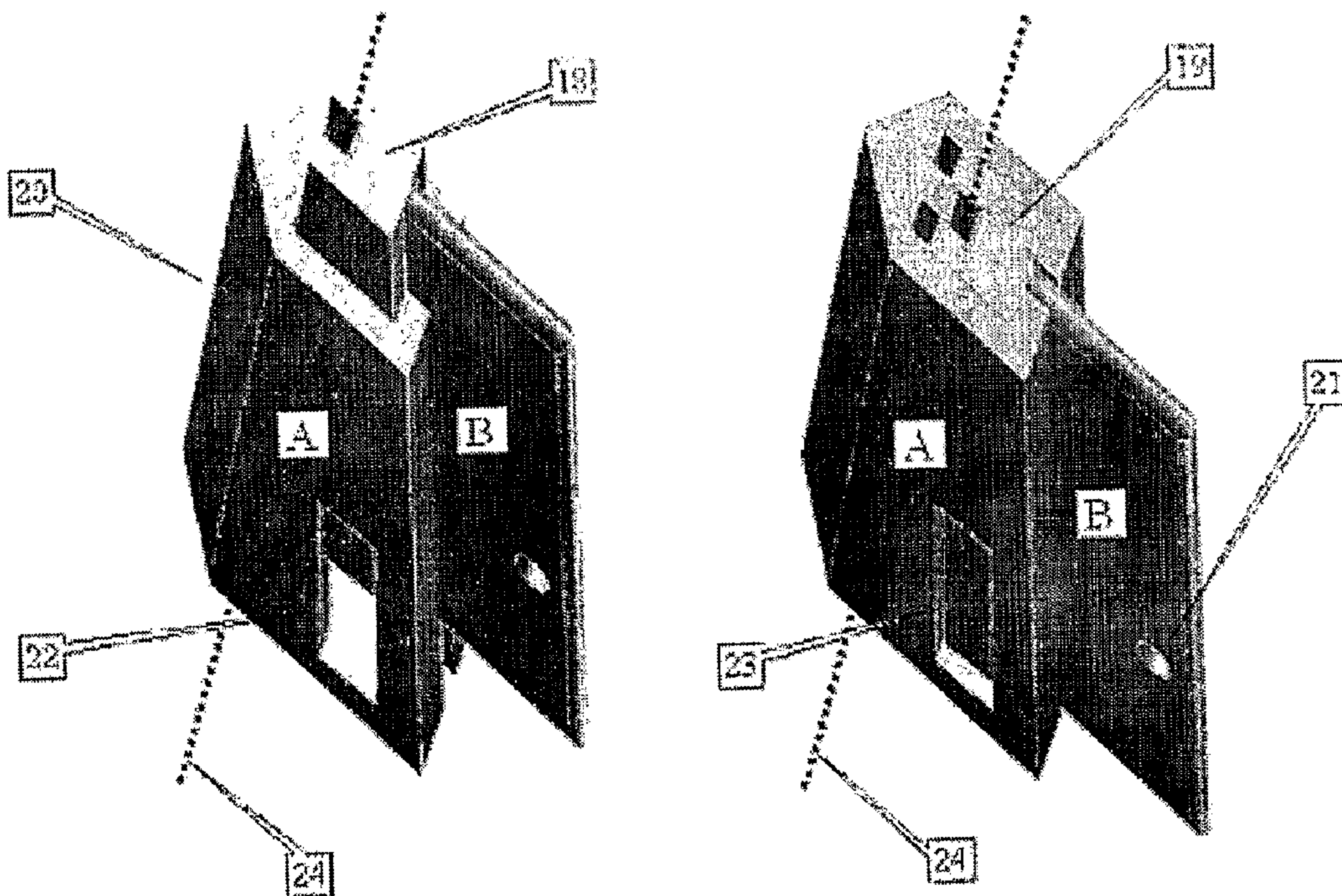




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(57) Abrégé/Abstract:

By trolling fisheries the wire (w) is provided with stacker clamps (10). Each downrigger (2) associated with a wire (w) attached typically 3 or 4 stacker clamps (10) each indirectly holds a fishing line (4). The fishing line (4) is pulled out of the fishing line release (7) when a fish bites on a fishing lure (8). To avoid felting together with other fishing lines, the wire (w) is hauled in. The stacker clamp that includes a body part (A) and a wedge-shaped part (B) opens automatically when it hits the haul up capstan. After opening the top stacker clamp it unhindered can slide down the wire (w). The next stacker clamp(s) opens automatically when it is hit by the top stacker clamp(s) or when they are subjected to downward pressure on the top surface (18) of the wedge-shaped part (B) on the clamp(s). Time-consuming manual handling of the stacker clamps (10) is eliminated, when the wire is hauled in on the downrigger (2).

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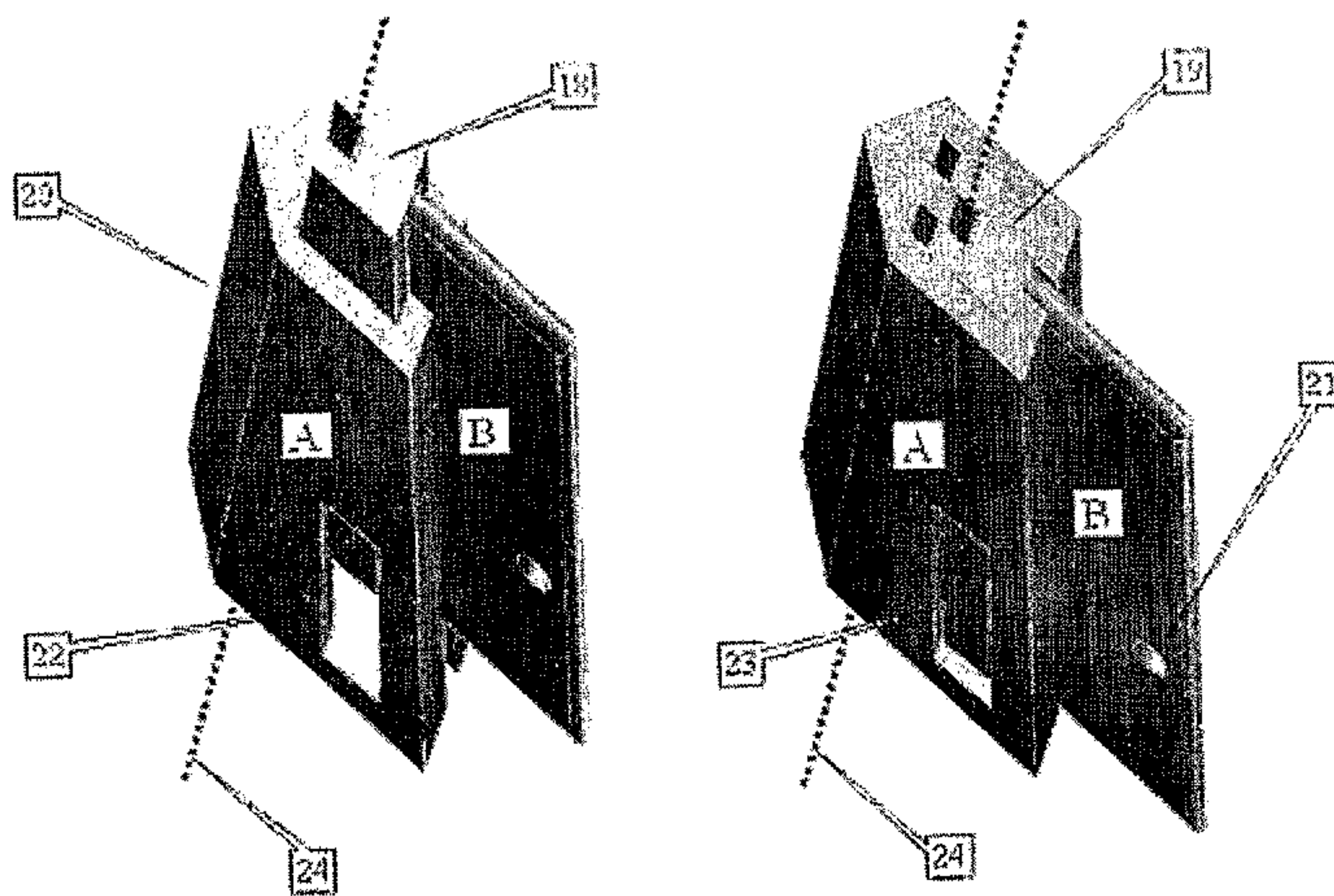


Fig. 3

(57) Abstract: By trolling fisheries the wire (w) is provided with stacker clamps (10). Each downrigger (2) associated with a wire (w) attached typically 3 or 4 stacker clamps (10) each indirectly holds a fishing line (4). The fishing line (4) is pulled out of the fishing line release (7) when a fish bites on a fishing lure (8). To avoid felting together with other fishing lines, the wire (w) is hauled in. The stacker clamp that includes a body part (A) and a wedge-shaped part (B) opens automatically when it hits the haul up capstan. After opening the top stacker clamp it unhindered can slide down the wire (w). The next stacker clamp(s) opens automatically when it is hit by the top stacker clamp(s) or when they are subjected to downward pressure on the top surface (18) of the wedge-shaped part (B) on the clamp(s). Time-consuming manual handling of the stacker clamps (10) is eliminated, when the wire is hauled in on the downrigger (2).

WO 2009/056135 A1

STACKER CLAMP

The present invention concerns a stacker clamp which can enclose a wire in one of two positions. Respectively in an open and in a locked position.

5

The technical problem to be solved

By trolling fisheries you are fishing at various sea depths, and used many fishing rods simultaneously. It is not uncommon to fish with 12 fishing rods at a time.

10 The fishing lines from the fishing fish bars are typically arranged in 3 or 4 steel cables (help lines) attached to a bottom sinker (cannon ball). The steel cables will be held over the gunwale by means of a down rigger. A down rigger mounted on the ship gunwale often has a length of 48 or 60 inches (respectively 122 and 152 cm).

15

Each fishing line - with a live or artificial bait such as a spoon bait - is kept down in the water by a fishing line trigger where the fishing line trigger through a piece of line is attached to a link (a stacker clamp), where said link is plugged into a submerged steel wire.

20

When a fish bites on the fish flashing, the fish pull out the fishing line out of the fishing line trigger.

25 When you on the boat discovers that there is a bite on one fishing line, all the other fishing lines are disengage from their respective fishing line trigger. All the fish flashings are backed down to avoid a felting together with the fishing line, which has a fish on the hook.

30 To avoid a further felting together with the wire and the bottom sinker, said wire is backed down also. But every time the wire has been wound so far that one stacker clamps is at the down rigger it has to be removed. This action by winding and removing stacker clamps has to be carried out as many times as there are stacker clamps on the wire.

When all this has been done, you are ready to fight the fish as normal.

Since each stacker clamp and their associated fishing line trigger must be disengage from the wire every time there is a bite at one of the hooks, a lot of
5 time one has to spend on preparation of the equipment between each time, you fight a fish.

Therefore, there is a great need for a technical solution that can reduce the time spent on preparation of fishing equipment fitted between each time, you fight a
10 fish.

In particular the elimination of the time used for the removal and reinstallation of the stacker clamps could reduce the time spent on preparation of fish equipment, significant.
15

Further it would also be desirable that the stacker clamps as far as possible can be installed and removed from the wire without deforming the wire. Since the deforming of the wire reduces the life time of the wire considerably. Therefore, the stacker clamp preferably must be installed and removed from the wire when
20 the wire is wholly stretched.

State of the art

In the patent literature you can find many examples of stacker clamps . The
25 three American patents paper U.S. 3738047 A1, U.S. 4750288 A1 and U.S. 6935069 B1 all relate to stacker clamps , which can be mounted and disengage a wire they are all of the kind which cannot be jammed onto the wire.,

30 Among the disadvantages of stacker clamps of this specific kind, you will find that stacker clamps which cannot be jammed onto the wire are inapplicable for a predetermined fish depths when fishing with 2 or more fish lines.

Among the commercially available stacker clamps you can find "Grizzly-stacker" and "Scotty Power Grip Stacker" stacker clamps that can be attached and removed the wire as needed.

Further from the English patent GB 2073300 A, a hanger device especially useful for cables is known, said hanger device comprises a body part with an inner elongated passage and a side opening for the insertion of a cable. Furthermore the hanger device includes a wedge with a flexible finger, which is located in the broadest end of the wedge. This wedge is designed for insertion into the body from the end, where a carving is located. When the wedge is pushed so far into the body, that the finger is engaged with the cutting, the cable will be clamped.

Therefore, from the state of the art you do not have a stacker clamp or device that automatically loosening its grip on the wire when the stacker clamp come up against the wire retriever on downriggeren or already detached stacker clamp - in connection with the hauling of the wire.

Therefore it is the object of the present invention to provide a stacker clamp, you do not disengage and then later mount every time you catch a fish. Another object of the invention is to provide a stacker clamp using the few resources. It is also the purpose of the invention to provide a stacker clamp , which can be fitted on to a wire, without the need to deform the wire.

25

The new technical means

It has been revealed that it is possible to produce a stacker clamp which you do not have to disengage and then later mount every time you catch a fish. Where said stacker clamp can be produced using very few resources and where said stacker clamp can be fitted on to a wire, without the need to deform the wire.

30

All these objectives have been met by providing a stacker clamp which can enclose a suspended wire in one of two positions. Respectively in an open and in a locked position. Where said stacker clamp can be made of only two parts preferably made of plastic.

5

The technical effect

The stacker clamp according to the invention consists of a body part and a wedge-shaped part where the body part partly encloses the wedge-shaped part.

10

The release of the stacker clamp from of the locked position to the open position can occur when the upper surface of the base part and the wedge-shaped part is placed in level by physical contact with the wire-retriever on the down rigger or by contact with an already detached stacker clamp. In this way all the stacker clamps automatically will be released when the wire attached a number stacker clamps is hauled in on the down rigger. Hereby the time-consuming, manual handling of the stacker clamps is eliminated, when the wire is hauled in on the down rigger.

15

The stacker clamp may subsequently be locked by sliding the base part below the level of the wedge-shaped part in the desired positions on the wire, when the fishing gear again is to be used.

20

The stacker clamp according to the invention preferably has an aerodynamic shape, where the aerodynamic shape is achieved partly by allowing the plane of the stacker clamp which is closest to the direction of movement be rounded and / or be wedge-shaped and partly by allowing the stacker clamp to be narrow and elongated in the direction of movement. By this aerodynamic shape you have less water resistance.

25

30

Because the stacker clamp, according to the invention, can be made from just two parts it is possible to simultaneously cast the two parts together in a single mold without any further operations leading to

that the stacker clamp can be produced using very few resources in both time and materials.

The stacker clamp according to the invention can as stated above be used on a down rigger wire, but the invention can also benefit greatly in connection with outrigger booms and planning board and for the attachments of cables on to the a wire when you submerged an underwater camera.

Moreover it is within the scope of the present invention to use the stacker clamp to attach objects including but not limited to: flags, signs, lamps, suspended ceilings to all types of wire ropes, cord, rope and so on.

Numbers of reference in the drawing:

15	Trolling boat	1
	Down rigger	2
	Fishing rod with fish wheel	3
	Nylon fish line	4
	Line	6
20	Fishing line release	7
	Fishing lure	8
	Cannon Ball	9
	Stacker clamp	10
	A body part	A
25	Wedge-shaped part	B
	The top surface of A	12
	The rear surface of B	14
	The front surface of A	15
	Hole	16
30	Pawl	17
	The top surface of B	18
	Open channel	19
	Hole for securing of (7)	21

Drawing

Fig. 1 shows a trolling boat where the fishing gear is ready for fishing.

5

Fig. 2 shows the two parts A & B of the stacker clamp made out of plastic.

Fig. 3 shows the stacker clamp made out of plastic in an open and in a locked position. The stacker clamp in the locked position you have to the left and the stacker clamp in the open position you have to the right.

10

Fig. 4 shows the two parts stakkerklemmen is built of, done in wood and metal. Before the parts are assembled.

15

Fig. 5 shows a partial joint stacker clamp made out of wood and metal.

Fig. 6 shows a total stacker clamp made out of wood and metal in the open position.

20

Fig. 7 shows a total stacker clamp made out of wood and metal in the locked position.

Fig. 8 shows a total stacker clamp enclosing a wire in the open position.

25

Fig. 9 shows a total stacker clamp enclosing a wire in the locked position.

Embodiment of the invention

Subsequently, the use of stacker clamps (10) according to the invention is describes in detail with reference to the drawing.

30

Fig. 1 shows the stacker clamps (10), according to the invention in action, here you can see an example of trolling fishing for salmon or other fish species found

in various marine using a down rigger. A down-rigger (2) is a boom that reaches beyond the side of the boat (1).

At one end of the down rigger boom (2) is fitted with an electrically or manually
5 operated cable spool. On the cable spool is fitted a wire (w) with a thickness of
0.3 to 1.5 mm. In the end of this wire (w) there is fastened a weight (9), the
weight is named a cannon ball (9). (Because formerly a cannon ball was used for
the purpose).

10 When the wire mounted a cannon ball (9) is lowered into the sea, stacker clamps
(10) are attached, according to the invention on to the wire (w). Each stacker
clamp (10) has attached a piece of line (6) leading to a fishing line trigger (7).
Each fish line trigger (7) is holding a fishing line (4) from a single fishing rod (3),
the fishing line (4) can be provided with natural or artificial bait - such as a
15 fishing lure (8).

The stacker clamps (10) are affixed to the wire (w) with a distance of from 3 to 5
meters.

20 Each down rigger (2) associated with a wire (w) attached typically 3 or 4 stacker
clamps (10), where each stacker clamp (10) indirectly holds a fishing line (4) -
as described above. The lagging behind, meaning the length of fishing line (4)
from the fishing line release (7) to the fishing lure (8) is usually 12-20 feet.

25 When the gear is rigged to is down rigger (2) fitted with 3 or 4 fishing rods (3)
with 3 or 4 fishing line releases (7) and with 3 or 4 fishing lures (8) operating in
different depths, and the cannon balls (9) is lowered down to the depth you want
to fish.

30 When a fish bites on a fishing lure (8) the fishing line (4) is drawn out of the
fishing line release (7) by the fish. When the men at the boat find out that they
got a rise all other fishing lines (4) are pulled free of their respective fishing line
releases (7) and the fishing lures (8) are hauled in.

It is necessary to haul in all the other fishing lures (8) since otherwise fishing lines and fishing lures easily could tangle together with the fishing line (4), which got a rise by a fish.

5

To avoid being further felting together with the wire (w) and the cannon ball (9), the wire (w) is also hauled in.

The top stacker clamp (10) opens automatically when it hits the haul up capstan after which the stacker clamp (10) unhindered can slide down the wire (w) the next stacker clamp (10) opens automatically when it is stroked by the first stacker clamp (10) or when the two top stacker clamps (10) are pushed against the haul up capstan. The third and possibly the fourth stacker clamp (10) according to the invention is also loosened up when they are subjected to downward pressure on the top surface (18) of the wedge-shaped part (B) on the clamp/clamps (10).

CLAIMS:

1. Stacker clamp that is made of two parts including a body part and a wedge-shaped part CHARACTERIZED in

that the stacker clamp (10) has at least one resiliency pawl (17) where a head of the pawl (17) goes into action with a hole (16) or a recess in a corresponding part,

that there is free passage for a line or a wire (w), which is located inside the stacker clamp (10) when the top surface (18) of the wedge-shaped part (B) is at level with the top surface (12) of the body part (A) while the head of pawl (17) is interacting with a hole (16) or a recess in the corresponding part and

that a line or wire (w), which is in the open channel (19) between the body part (A) and the wedge-shaped part (B) is firmly squeezed inside the stacker clamp (10), when the wedge-shaped part (B) is shifted upwards in relation to the top surface (12) of the base portion (A).

2. Stacker clamp according to claim 1 CHARACTERIZED by that the side of the stacker clamp (10), which is closest to the direction of motion is rounded and / or wedge-shaped.

3. Stacker clamp according to claim 2 CHARACTERIZED by that the body part (A) of the stacker clamp has a surface (15), which is rounded and / or wedge-shaped.

4. Stacker clamp according to claim 1 CHARACTERIZED by that the stacker clamp (10) is made of two parts.

5. Stacker clamp according to claim 1 CHARACTERIZED by that the stacker clamp (10) is made of a plastic material.

6. Stacker clamp according to claim 1 CHARACTERIZED by that the stacker clamp (10) is made of metal.

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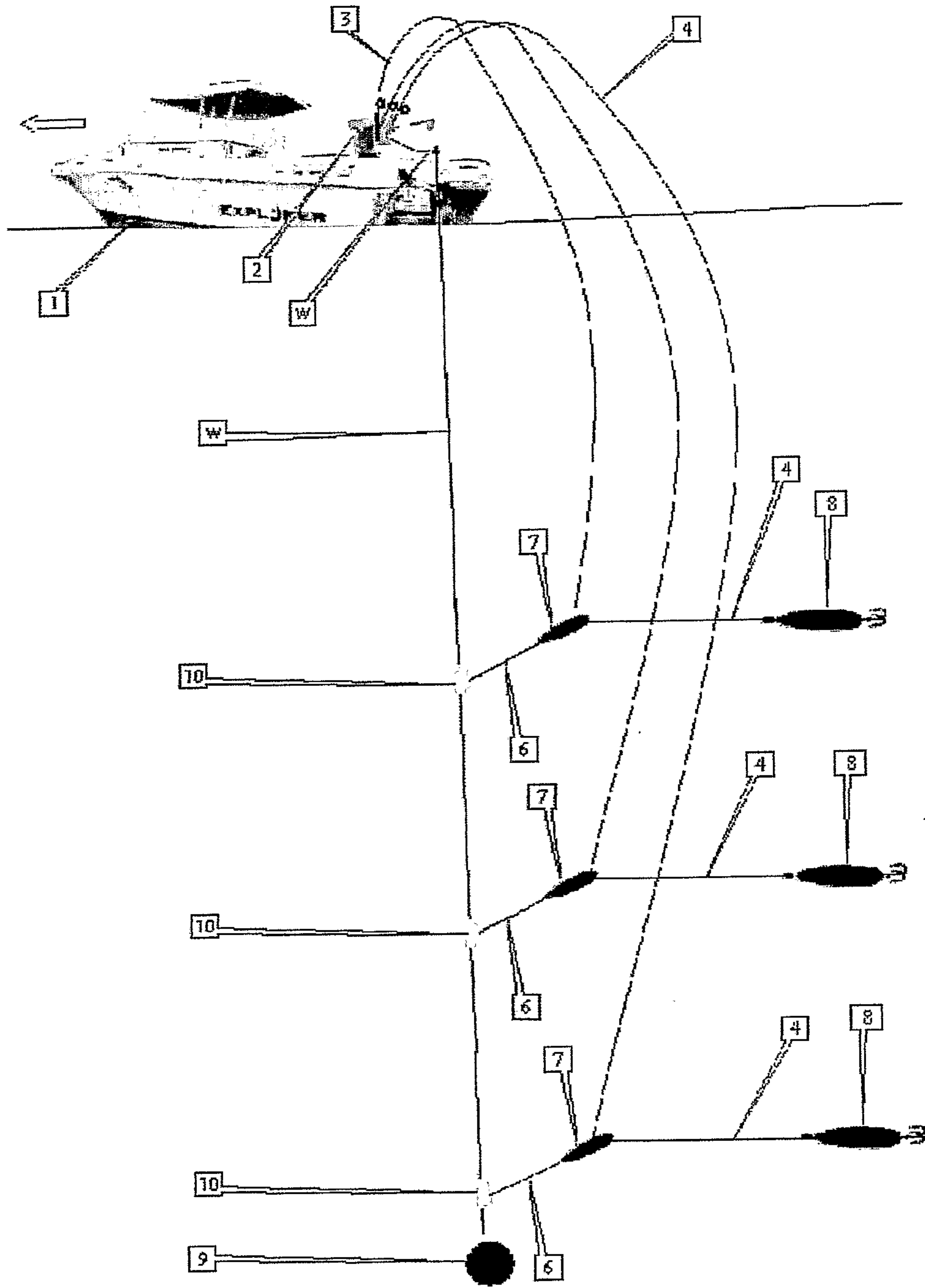


Fig. 1

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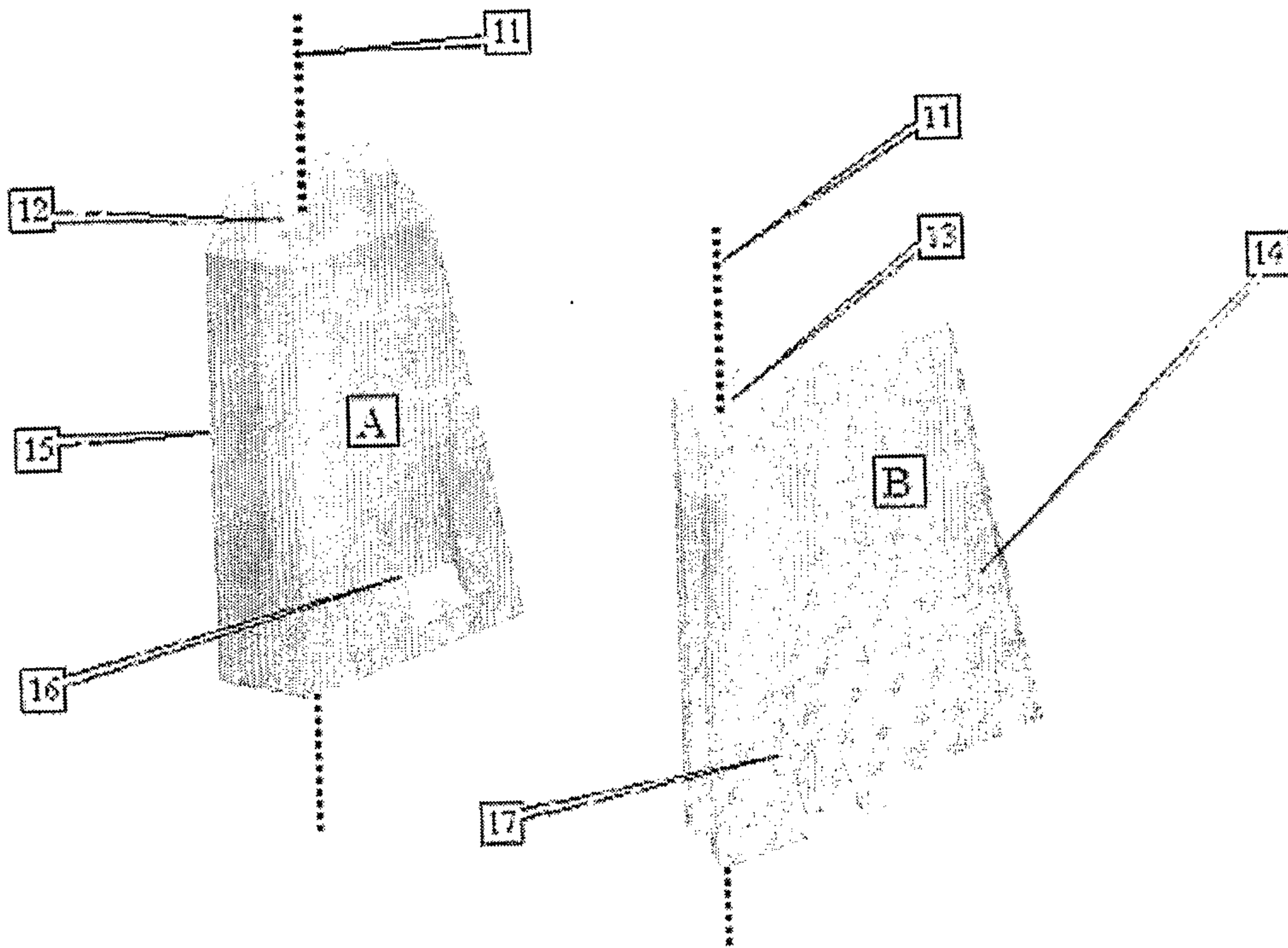


Fig. 2

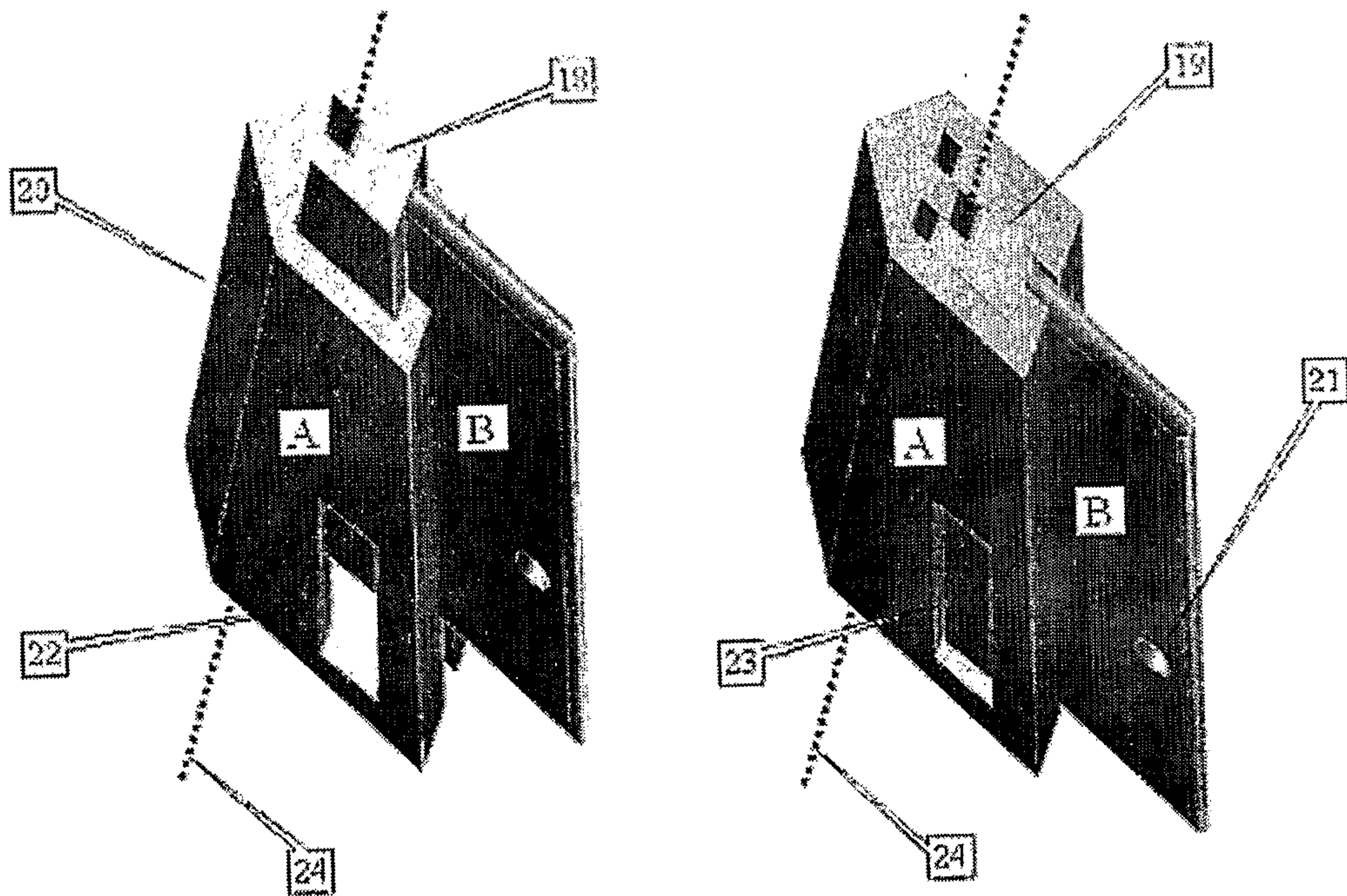


Fig. 3

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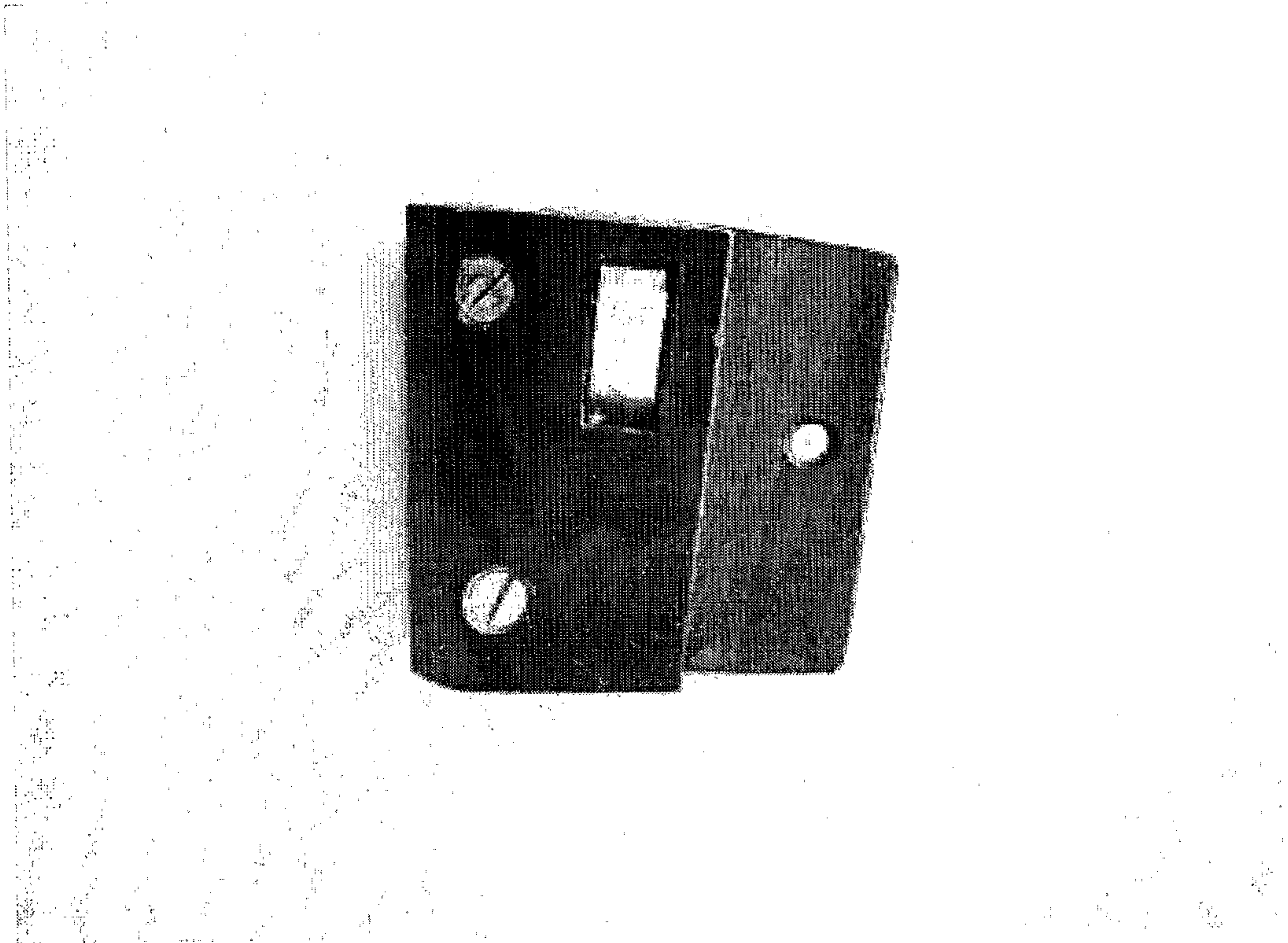


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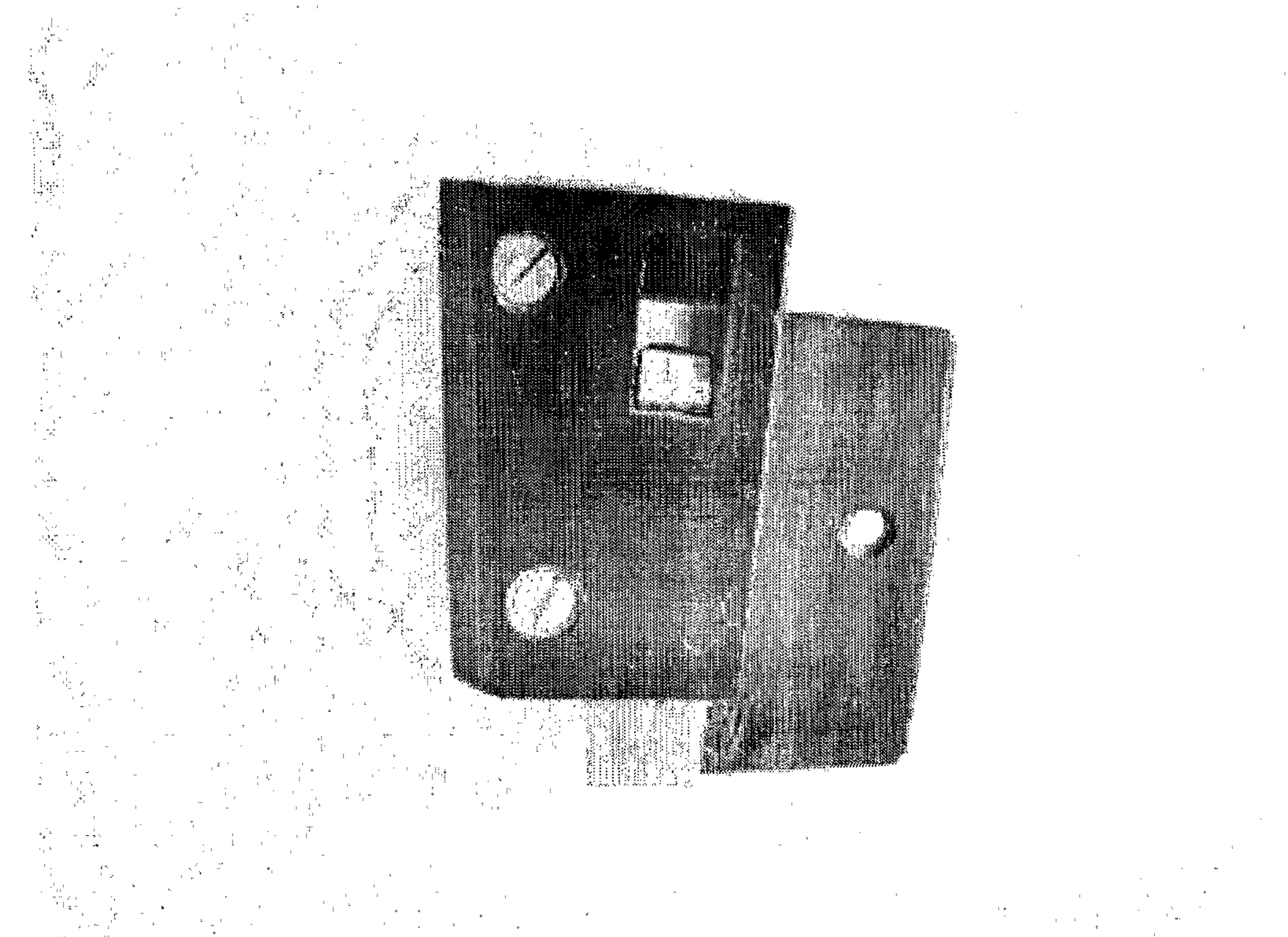


Fig. 5

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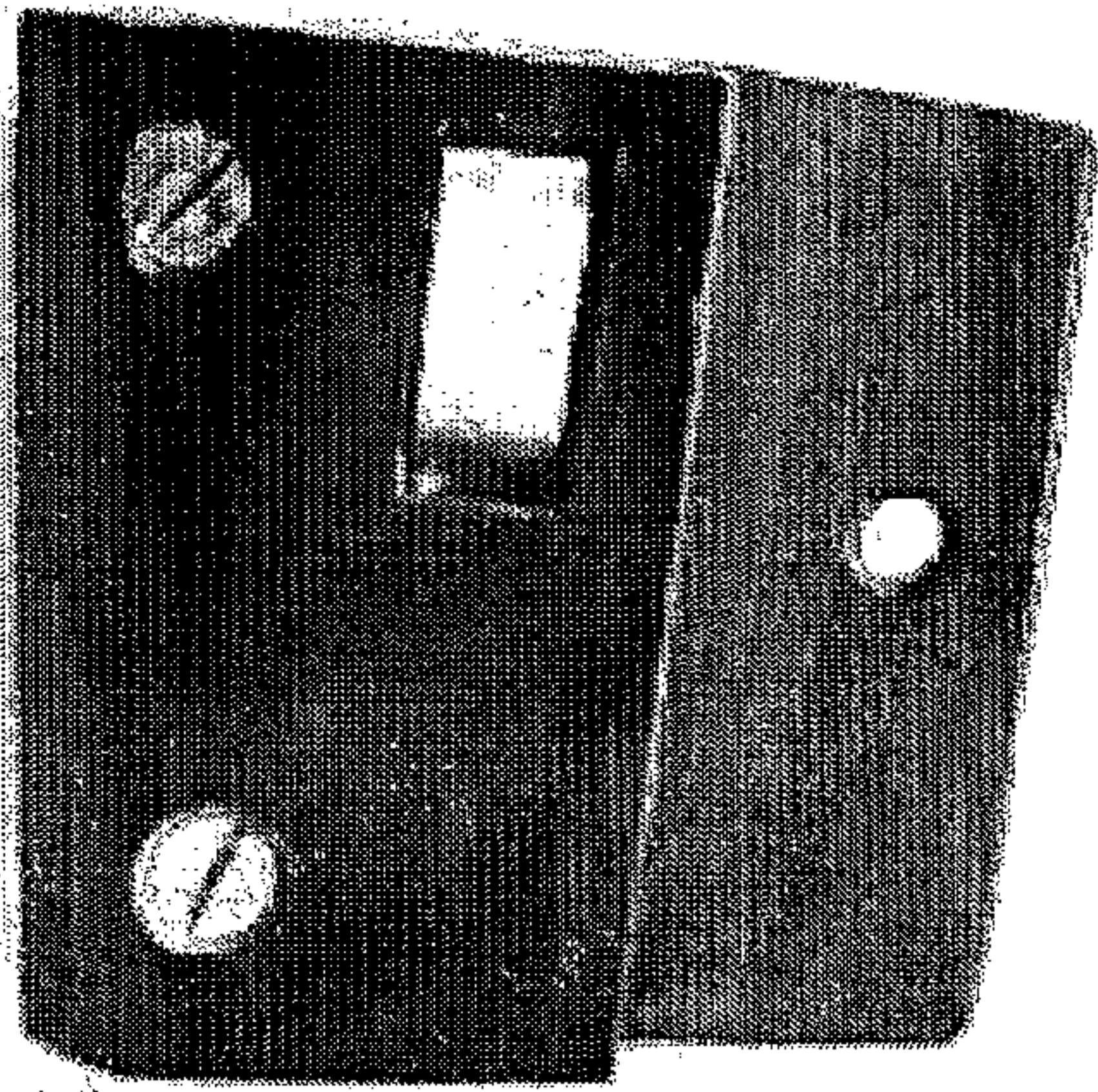


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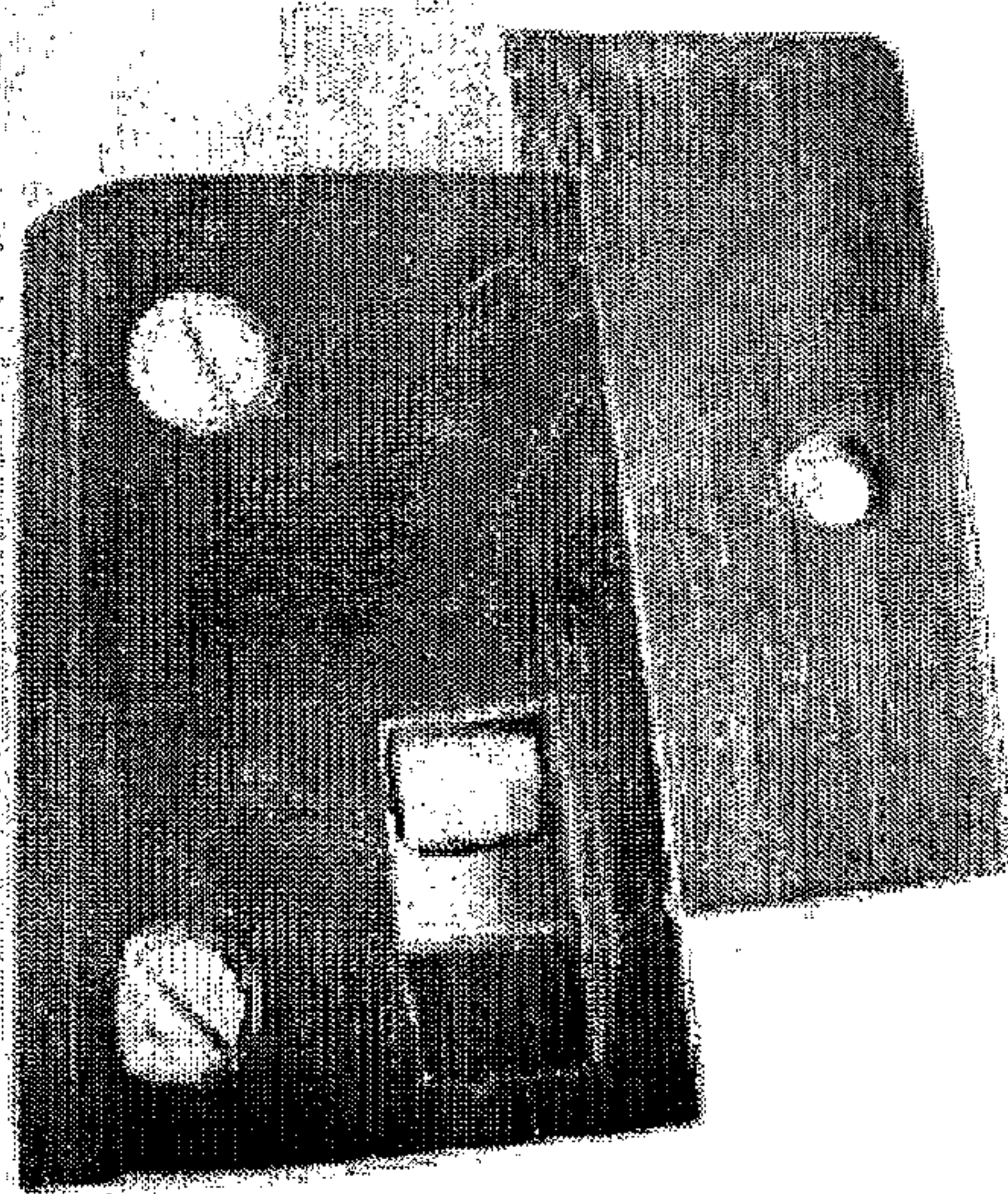


Fig. 7

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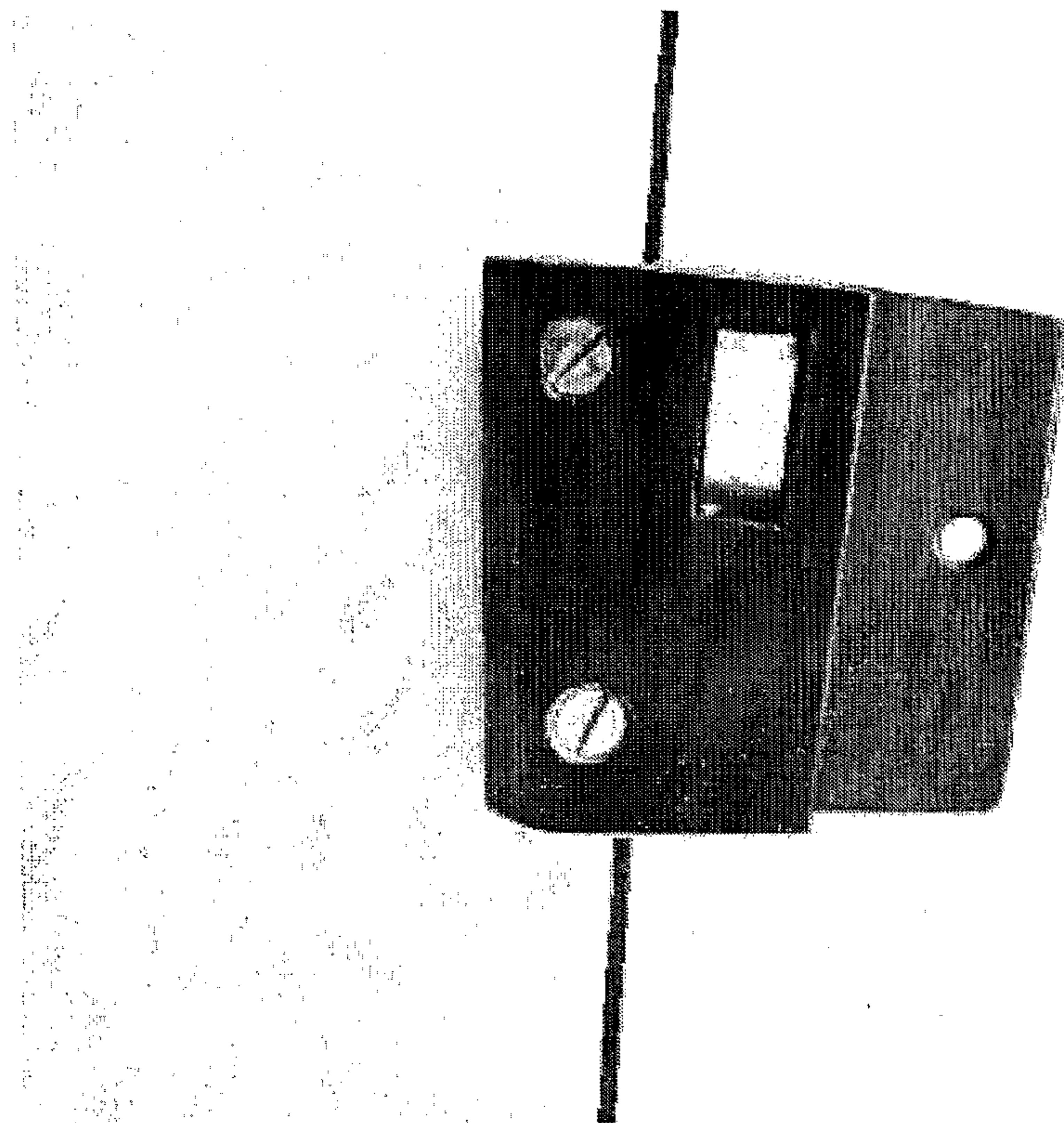


Fig. 8

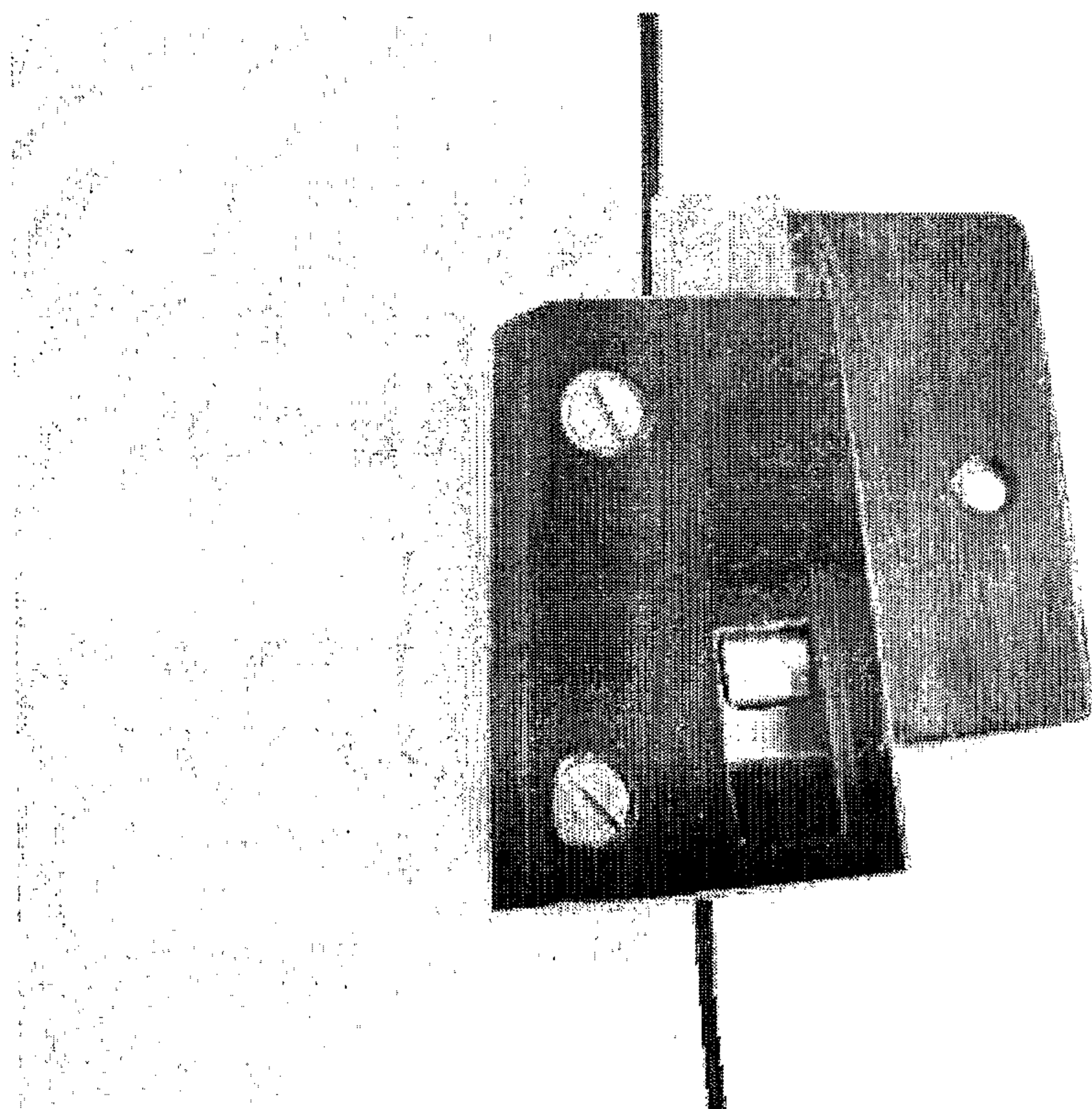


Fig. 9

