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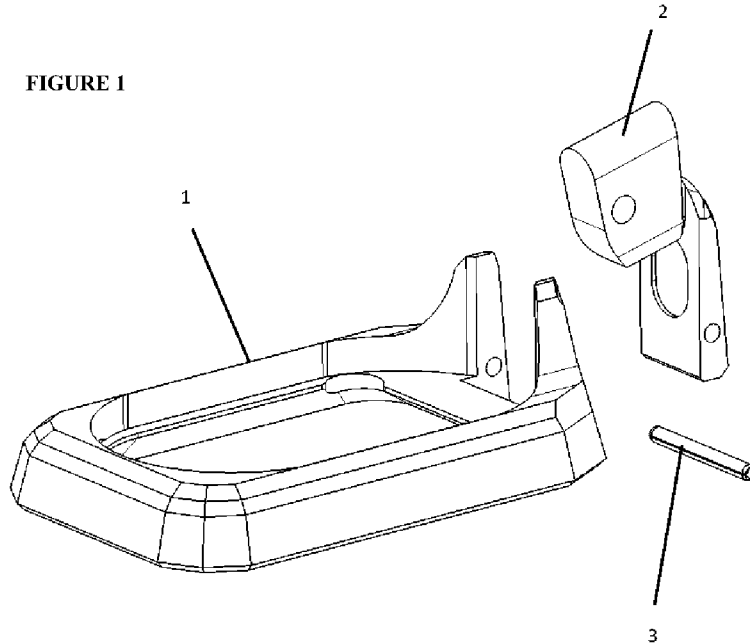
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(54) **Title: MAGWELL FOR USE WITH FIREARMS**

FIGURE 1



(57) **Abstract:** The invention is related to a magwell (7) which provides for a more practical placement of the magazine into the magazine bearing and speeding of the magazine changing procedure. The magwell body (1) of the mentioned magwell (7) aims to be detachably attached to the grip secondary element (5) which defines the grip and which can be detachably attached to the grip primary element (4) that is part of the firearm grip.



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MAGWELL FOR USE WITH FIREARMS

5 Technical Field

The invention is related to a magwell which provides for a more practical placement of the magazine into the magazine bed and speeding of the magazine changing procedures.

10 State of the Art

The main purpose of the magwell is to place the magazine into the magazine bearing in the body swiftly in any position and provide rapid magazine change. The magwell provides for the magazine to be guided and seated while creating a surface area for the hand to grip the
15 bottom. Thereby, it contributes to gun control as it helps changing the magazine rapidly.

In fact, magwells are guides that can be used with the purpose of the gun user to load the magazine into the gun easily and effortlessly. These guides have more importance especially for the competition shooters. For the competition shooters to reach their desired speed, they
20 need to insert the new magazine into the gun rapidly without moving their gaze from the target. Since they enable rapid and consistent loading, magwells can create important advantages in the total score of the shooter in competitions.

Magwells can enable rapid loading by enlarging the opening of the magazine entrance on the
25 grip by channelizing the magazines that were driven to the well towards the opening in an entry form due to their funnel-shaped structures and wall formations at different angles.

Thanks to the magwell again, the enlarged portion formed at the bottom of the grip will give the user an important advantage in terms of gripping the gun and will be a reason for
30 preference by the competition shooters.

The fact that the bottom of the pistol is not extended and short in uses without magwells, they cause the user to be unable to grip the pistol grip completely and use the same effectively. Especially in rapid magazine changes, it provides the magazine to be seated into the housing

within the body by serving as a funnel. The magwell use by the user will increase their domain and support their control over the pistol.

5 Patent application number US202002547 describes a magwell which can be used for semi-automatic weapons. It is understood that the embodiment as the subject of the invention is an apparatus for elongating the magwell of a firearm. In order to connect the mentioned apparatus to the gun, it has an expandable fixing mechanism that can selectively expand against the internal clearance adjacent to the magazine housing.

10 Patent application number US10921076 describes a magwell adapter aiming to be used for firearms.

It is understood that the mentioned adapter can be slidably connected to the bottom of the grip portion of the firearm. According to the application, the adapter may comprise an opening for receiving a protrusion and holding the winding spring in place within the grip portion. Again, 15 the adapter may comprise at least one pin-receiving opening on the rear end and this opening can be configured to receive a main spring housing pin to connect the main spring housing to the adapter.

20 As exemplified above, magwells can be connected to the grip by means of various connection mechanisms. When the pressure and vibration the gun creates as it is shot is considered, there can be loosening and displacement of the magwell connection components. The deformations created at the moment of shooting can influence the shooting performance of the user.

25 Since magwells render gun use swift and practical, performing the connection of the magwells to be used to the gun practically can be demanded by the users. Most of the time, complex connection mechanisms can be stably connected to the magazine and eliminate or reduce the problems of loosening and displacement. However, since these mechanisms will make practical and rapid connection to the gun more difficult, they may create a disadvantage 30 for the users.

Problems Aimed to be Solved by the Invention

The purpose of the invention is to provide a magwell in which the loosening and displacement

problems are reduced by both making the mounting-demounting of the magazine more rapid and practical, and stabilizing the grip connection.

5 Since more rapid and practical mounting of the magwell as the subject of the invention is enabled, it can be mounted to the grip easily and effortlessly.

Despite easy montage, since the magwell is stably connected to the grip, possible loosening and displacement problems can be minimized.

10 With the use of the magwell as the subject of the invention it is provided for the magazine to be guided and seated in place, while creating a surface area for the hand to grip the bottom. Thereby, it will be able to contribute to gun control as it helps changing the magazine rapidly.

Description of the Figures

15

Figure 1. Sectional isometric view of the magwell.

Figure 2. Left view of the magwell.

Figure 3. Right view of the magwell.

Figure 4. Rear view of the magwell.

20 Figure 5. Top view of the magwell.

Description of the References in the Figures

1. Magwell body
- 25 2. Magwell knuckle
3. Magwell connection element
4. Grip primary element
5. Grip secondary element
6. Grip connection element
- 30 7. Magwell
8. Magazine pin hole
9. Knuckle placement clearance
10. Grip pin hole
11. Grip placement clearance

12. Knuckle hole

Description of the Invention

5 The invention is related to a magwell (7) which provides for a more practical placement of the magazine into the magazine bearing and speeding of the magazine changing procedure.

The magwell body (1) of the mentioned magwell (7) aims to be detachably attached to the grip secondary element (5) which defines the grip and which can be detachably attached to the
10 grip primary element (4) that is part of the firearm grip.

The mentioned magwell body (1) comprises walls which have been angled to direct the magazine during positioning, and a wider opening, with the purpose of being more easily positioned within the magazine bed.

15

The magwell body (1) comprises at least one magwell knuckle (2) which aims to be interlocked with the knuckle placement clearance (9) of the grip secondary element (5) with the axial movement around the magwell connection element (3), associated with the magwell body (1) such that it can axially move around at least one magwell connection element (3).

20

The interlocking detail of the magwell knuckle (2) is placed within the grip placement clearance (11) of the grip secondary element (5) with the axial movement of the magwell knuckle (2) in a direction centered to the magwell connection element (3). With this interlocking, the magwell (7) can be connected to the gun.

25

With an axial movement in the opposite direction, the connection between the magwell (7) gun details can be severed.

According to Figure 1, in which a preferred embodiment of the invention is described, the
30 magwell connection element (3) has a pin form and aims to be placed within the magazine pin hole (8) formed on the magwell body (1).

Within the scope of this embodiment, a detail of the magwell knuckle (2) aims to be placed within the knuckle placement clearance (9) formed on the magwell body (1). Following this

positioning, the pin passes through the magazine pin hole (8) and the hole formed on the detail of the magwell knuckle (2), and the connection is completed. Thanks to the structure of this connection, the magwell knuckle (2) can move around the pin axially.

- 5 This embodiment will enable the magwell body (1) to be mounted and demounted to the gun by changing the axial positions of the user.

Consequently, the magwell knuckle (2) is an intermediate piece which provides for the magwell knuckle (7) to be fixed to the grip. It provides visual and ergonomic improvement.

- 10 The magwell connection element (3) is the piece which helps combining the magazine body (1) and the magwell knuckle (2). Thanks to this fixing procedure, loosening and partial movement of the magwell knuckle (2) in a possible situation is prevented.

- 15 The magwell body (1) is a piece which aims to be connected to the magazine clearance created at the end of the pistol grip gripping area formed by the grip primary element (4) and the grip secondary element (5) and as a result, increases its efficiency.

In order to complete the connection of the magwell knuckle (2) with the gun, additionally, the grip connection element (6) is used.

20

According to Figure 6, the grip connection element (6) is created in the pin form. This pin fixes the connection by passing through the knuckle hole (12) formed on the magwell knuckle (2) and the grip pin hole (10). By this means, the position of the magwell knuckle (2) within the knuckle placement clearance (9) is fixed.

25

After the connection element (6) created in pin form is passed from the mentioned holes (10,12), the connection can be completed by additionally connecting the same to the holes formed on the gun grip.

CLAIMS

- 5 1. A magwell (7) which aims for the magwell body (1) of the magwell (7) to be detachably connected to the grip secondary element (5) which is detachably connected to the grip primary element (4) as part of the firearm grip, which provides that it is more practical to place the magazine into the magazine bed of the firearm and speeds the magazine changing procedure, **characterized in that** it comprises at least one magwell knuckle (2) which aims to be interlocked with the knuckle placement clearance (9) with the axial movement around the magwell connection element (3), associated with the magwell body (1) such that it can axially move around at least one magwell connection element (3).
- 10
2. Magwell (7) according to Claim 1, **characterized in that** it is in the pin form and comprises the magwell connection element (3) aiming to be placed within the magazine pin hole (8) formed on the magwell body (1).
- 15
3. Magwell (7) according to Claim 2, **characterized in that** it comprises the pin which passes through the magazine pin hole (8) and the hole formed on a detail of the magwell knuckle (2), completing the connection.
- 20
4. Magwell (7) according to Claim 1, **characterized in that** it comprises the grip connection element (6) which fixes the connection by passing through the knuckle hole (12) formed on the magwell knuckle (2) and the grip pin hole (10).
- 25
5. Magwell (7) according to Claim 4, **characterized in that** it comprises the grip connection element (6) in the pin form.

FIGURE 1

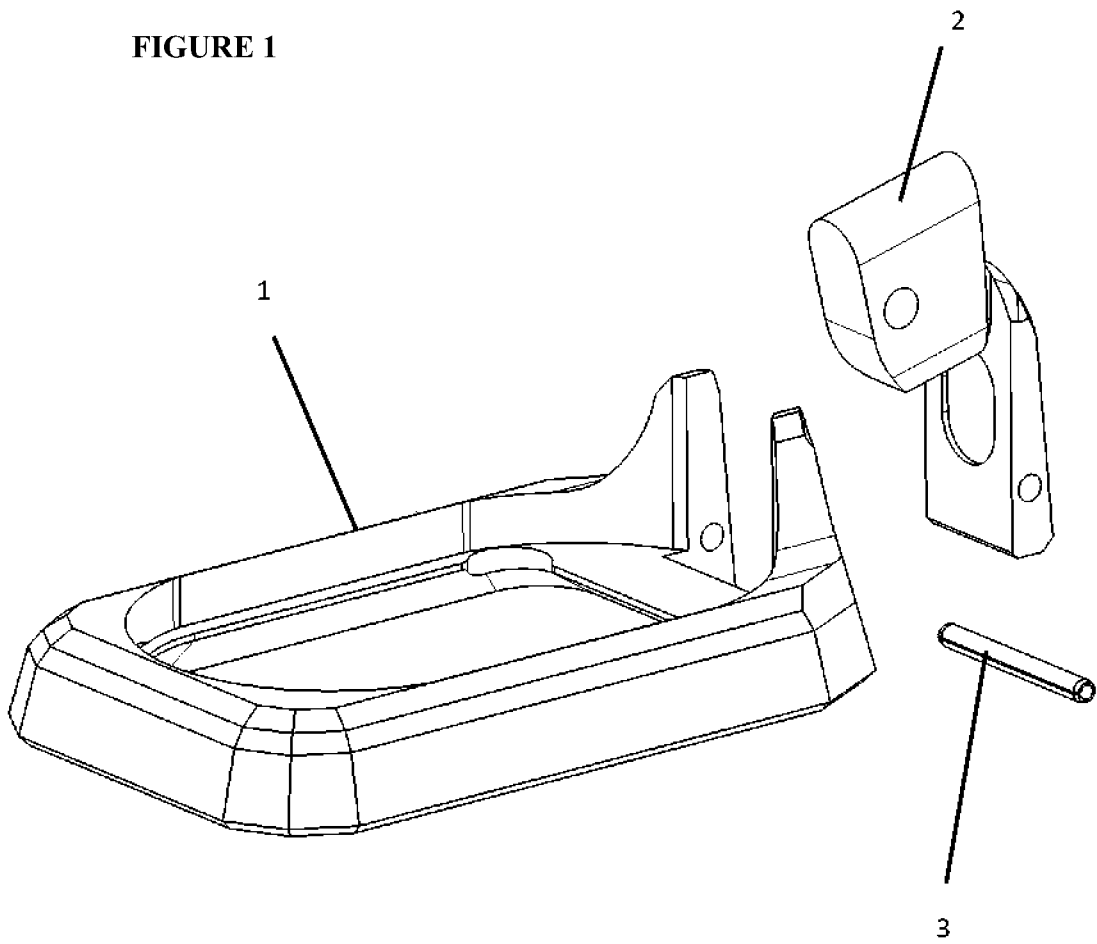


FIGURE 2

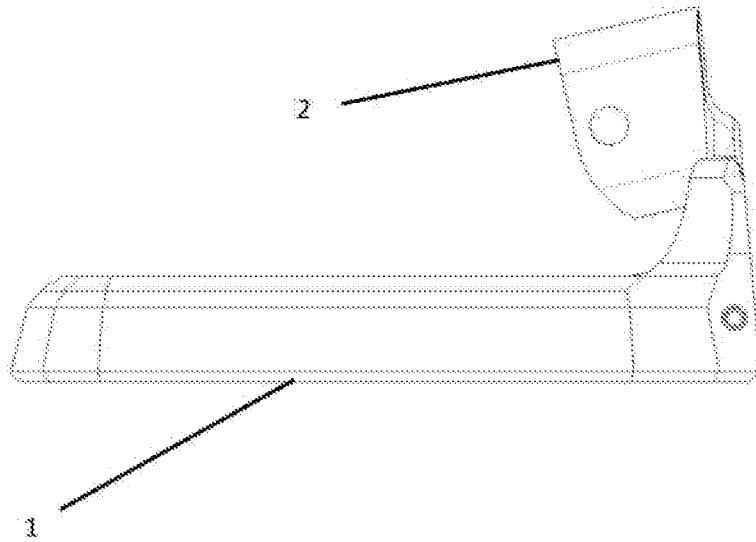


FIGURE 3

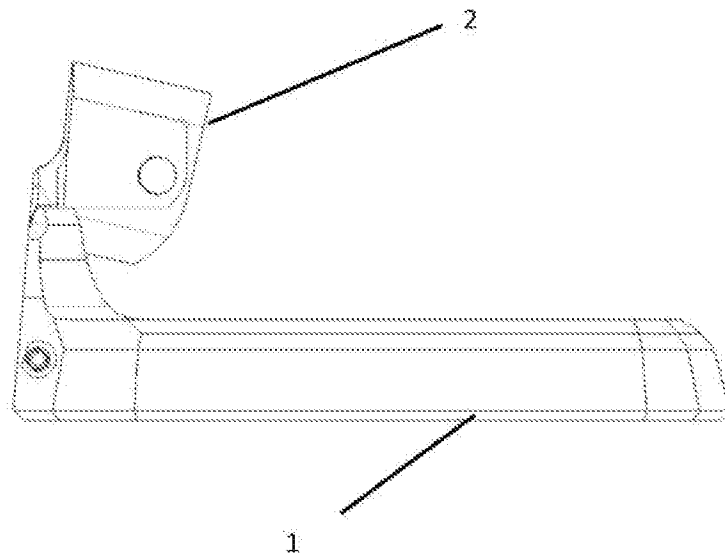


FIGURE 4

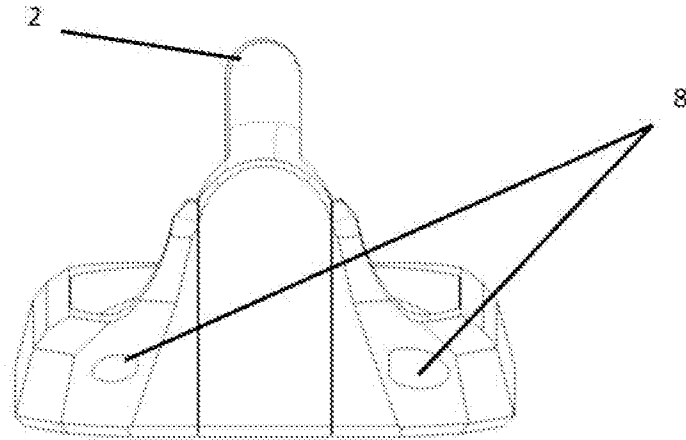


FIGURE 5

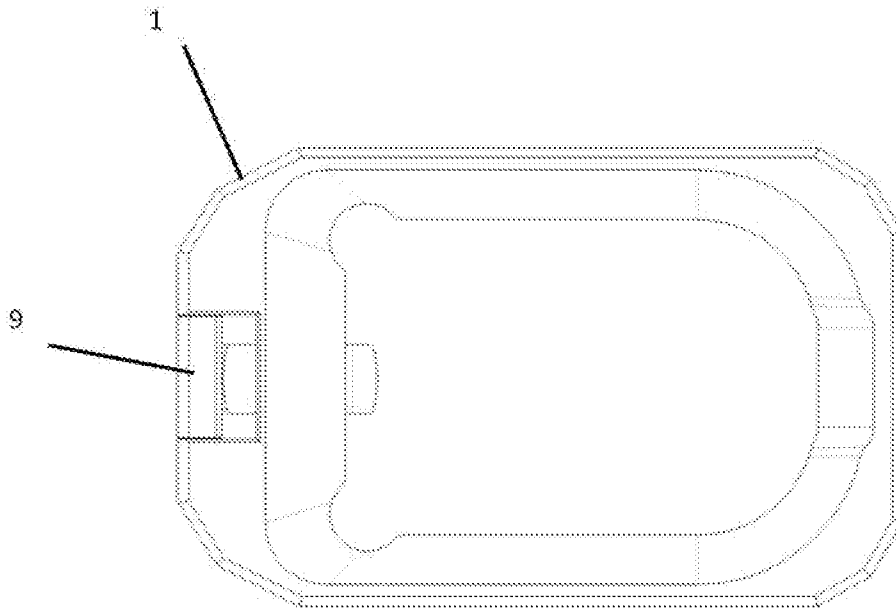
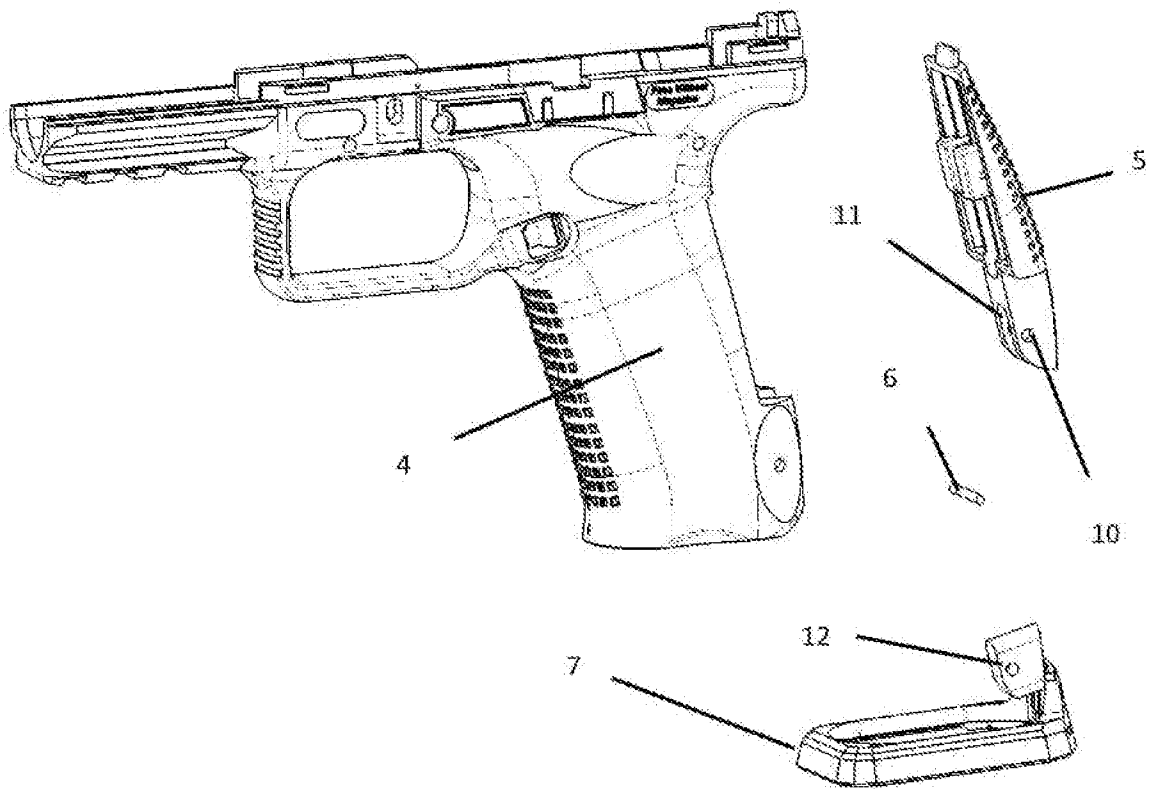


FIGURE 6



INTERNATIONAL SEARCH REPORT

International application No.

PCT/TR2022/050360

A. CLASSIFICATION OF SUBJECT MATTER		
F41A 9/65 (2006.01)i; F41A 9/71 (2006.01)i		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
F41A 9/65; F41A 9/71		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
EPODOC		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 10921076 B1 (NIGHTHAWK CUSTOM LLC [US]) 16 February 2021 (2021-02-16) The whole document	1-5
A	US 2017205168 A1 (LEGACY CUSTOM PRODUCTS INC [US]) 20 July 2017 (2017-07-20) The whole document	1-5
A	US 2020363158 A1 (AGENCY ARMS LLC [US]) 19 November 2020 (2020-11-19) The whole document	1-5
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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Date of the actual completion of the international search		Date of mailing of the international search report
20 October 2022		20 October 2022
Name and mailing address of the ISA/TR		Authorized officer
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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/TR2022/050360

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
US	10921076	B1	16 February 2021	NONE			
US	2017205168	A1	20 July 2017	US	10066885	B2	04 September 2018
				US	2019003794	A1	03 January 2019
US	2020363158	A1	19 November 2020	US	10859343	B1	08 December 2020