April 5, 1966 H. D. HULTERSTRUM 3,244,058

CARTRIDGE LOADING BLOCK

Filed July 10, 1964

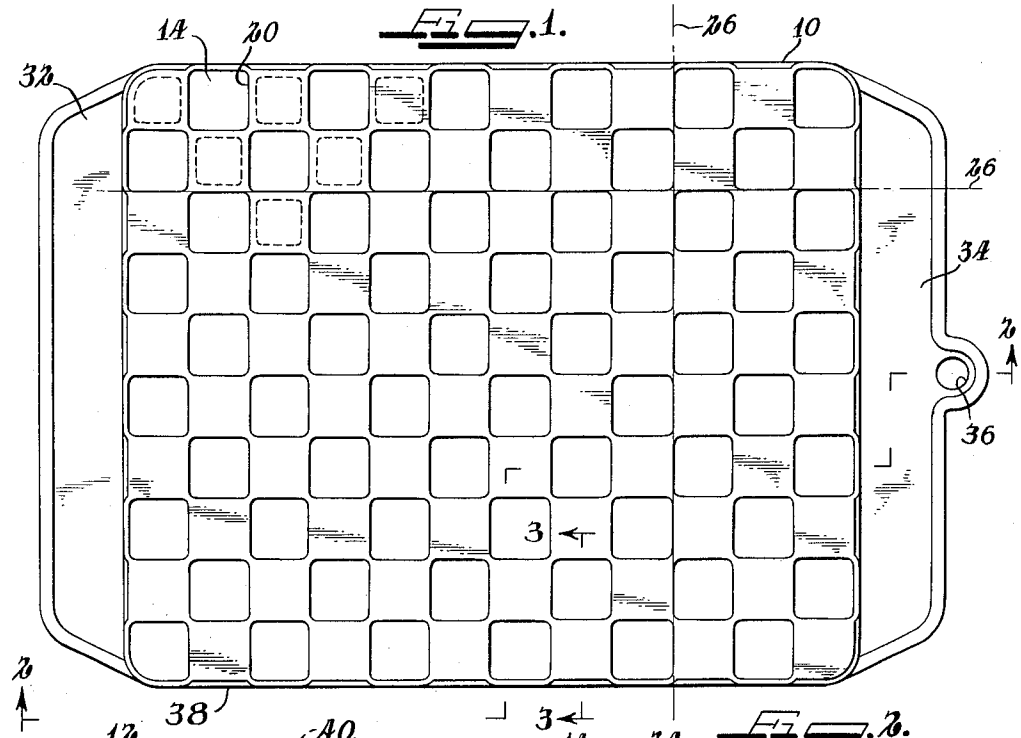


FIG. 1.

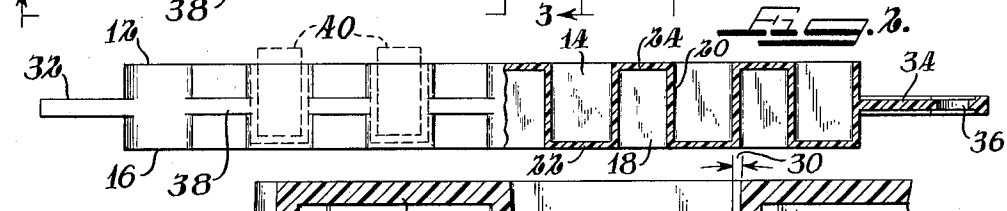


FIG. 2.

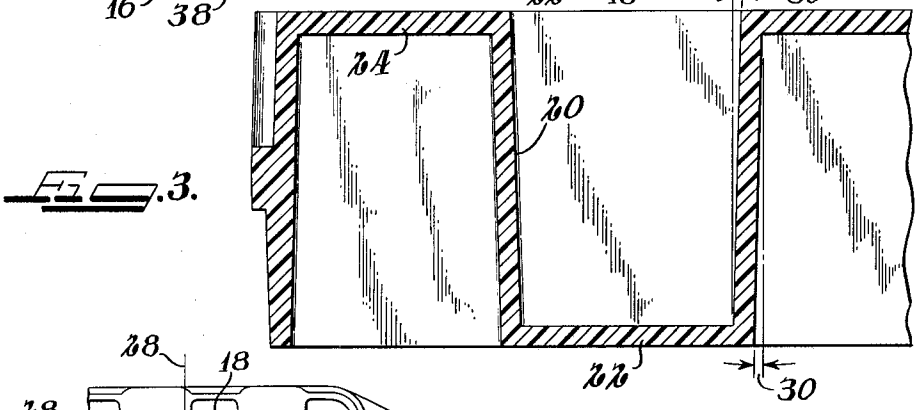


FIG. 3.

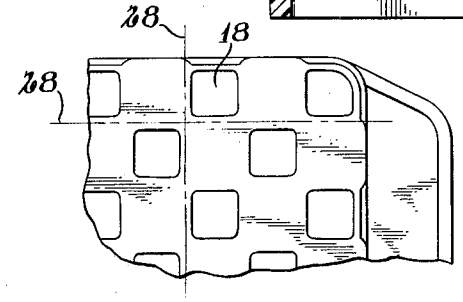


FIG. 4.

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United States Patent Office

3,244,058

Patented Apr. 5, 1966

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3,244,058

CARTRIDGE LOADING BLOCK

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Filed July 10, 1964, Ser. No. 381,775

3 Claims. (Cl. 86—44)

My invention relates generally to an improvement in cartridge loading blocks.

In the past it has been known to construct cartridge loading blocks out of a block of material, generally wood or metal, in which cartridge holding chambers have been drilled or otherwise machined. The holes have been drilled to the approximate diameter of the cartridge intended for use therein.

The old type cartridge loading blocks, in addition to being weighty and bulky, are generally limited in their use since a sportsman is required to carry with him several such blocks to accommodate cartridges of various diameters.

One object of my invention is to provide an economically constructed loading block, light in weight, and of minimum bulkiness that provides support for the charging and recharging of the most common types of cartridges.

Another object of my invention is to provide a thermoplastic loading block having two sides, each side containing a plurality of cartridge loading chambers alternately disposed with the chambers on the opposite side, the chambers on one side being substantially uniform but different in size from the chambers on the opposite side, whereby thin substantially uniform walls are formed between the alternately disposed chambers thus allowing for a maximum number of cartridge loading chambers with a minimum of wasted thermoplastic material for any given loading block size. The overall depth of this two sided loading block is to be no greater than a loading block having cartridge loading chambers only in one side.

Other objects of the invention are particularly important and include specific details of construction. With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my cartridge loading block, whereby the objects above contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in detail on the accompanying drawing, wherein:

FIG. 1 is a plan view of the loading block that is the subject of my invention.

FIG. 2 is a side view of FIG. 1 showing a partial cross sectional view along line 2—2 in FIG. 1.

FIG. 3 is an enlarged cross sectional side view of FIG. 1 through the line 3—3, showing the draft angles and the thin common walls of substantially uniform cross section separating the alternately disposed chambers.

FIG. 4 is a partial plan view of the opposite side of FIG. 1.

In the accompanying drawing there is shown a cartridge loading block 10 embodying the present invention and defining a first plane side 12 in which are disposed a plurality of large cartridge holding chambers 14, and a second plane side 16, parallel to the first in which are disposed a plurality of small cartridge holding chambers 18.

In the particular embodiment illustrated in the drawing there are six large chambers 14 on the first side 12 in the longitudinal direction and five in the transverse direction. Similarly, there are six small chambers 18 on the second side 16 in the longitudinal direction and five in the transverse direction.

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From FIG. 1 and FIG. 2 it can be seen that the alternately staggered large chambers 14 and small chambers 18 form substantially uniform thin walls 20 between them.

The bottom webs 22 of the large chambers 14 are formed by the portions of the second side 16 interstitially defined between the small chambers 18. The bottom webs 24 of the small chambers 18 are formed by the portions of the first side 12 interstitially defined between the large chambers 14.

The unique arrangement of the large chambers 14 on the first side 12 being alternately disposed with small chambers 18 on the second side 16 is made possible by constructing the loading block 10 so that the edges of each longitudinal and each tranverse row of large chambers 14 on the first side 12 are aligned along straight lines as is shown in FIG. 1 at 26. Correspondingly, the small chambers 18 on the second side 16 are so aligned that a match line 28 falls parallel to and midway between the edges of the small chambers 18 in both the longitudinal and transverse directions as shown in FIG. 4 at 28.

In a presently preferred embodiment of my invention the loading block is made of a thermoplastic material. It is known that for best plastic molding efficiency it is ideal to have uniform plastic wall thickness. It is also known that to facilitate the removal of a part from a plastic mold it is better if the walls of the product have been formed between corresponding parts of the mold cavity and mold core rather than by pressure forcing plastic into a slot in either the cavity or the core.

From the drawing it can be seen that a mold cavity and a mold core may alternately form the large and small loading chambers 14 and 18 and that the thin walls 20 may thereby result from the interaction of the mold cavity and core. To aid this interaction and to facilitate removal of the part from a mold I have provided uniform draft angles 30 on the alternately staggered large chambers 14 and small chambers 18.

Flange handles for turning the loading block to utilize both large and small chambers appear at 32 and 34. In the embodiment shown the flange handles are parallel to but midway between the planes of the sides of the loading block. A carrying ring hole 36 appears in flange 34. The flange handles cooperate with the ribs 38 and the thin walls 20 to add strength and rigidity to the loading block.

One particular embodiment of my invention which in practice I have found adequately provides for the needs of a sportsman is to so construct my loading block 10 so that the large chambers 14 have an inscribed diameter of approximately .550 inch and the small chambers 18 have an inscribed diameter of approximately .472 inch. With such a construction a draft angle 30 of approximately ½° is used, and the uniform thin walls measure approximately .045 inch in thickness. This particular embodiment provides sufficiently firm loading block support for cartridges ranging in diameter from .22 to .455 inch.

It is apparent from FIG. 2 that the overall depth of the loading block or the distance between the first side 12 and the second side 16 is no greater than that which would be required for a loading block having cartridge loading chambers only in one side.

Hidden line views of two cartridge casings positioned in the loading block for charging or recharging with gun powder appear at 40 in FIG. 2.

The arrangement disclosed provides a single loading block having different sized cartridge loading chambers in each of two sides, and results in a low cost, light weight thermoplastic cartridge loading block of minimum bulkiness capable of handling substantially all of the common diameter cartridges.

While the invention is susceptible of various modi-

fications, a preferred embodiment has been shown in the drawings and has been described in considerable detail. It should be understood that there is no intention to limit the invention to the specific form disclosed, but on the contrary, the intention is to cover all modifications and alternative constructions falling within the spirit and scope of the invention as expressed in the appended claims.

I claim as my invention:

1. A cartridge loading block comprising two parallel plane sides, each side defining a plurality of substantially uniform square cartridge holding chambers, said chambers on one side being alternately staggered in opposed relationship to the chambers defined in said other side to form uniform thin walls therebetween, said chambers on one side being substantially of one uniform size and said chambers on the other side being of a different substantially uniform size, flanges for handling said cartridge loading block substantially in a plane parallel to and between those of the parallel plane sides, said uniform thin walls being .045 inch thick, the chambers on one side having an inscribed diameter of .550 inch and the chambers on the other side having an inscribed diameter of .472 inch.

2. A molded plastic cartridge loading block comprising two parallel plane sides, each side defining a plurality of substantially uniform square cartridge holding chambers, said chambers on one side being alternately staggered in opposed relationship to the chambers defined in said other side to form uniform thin walls therebetween, said chambers on one side being substantially of one uniform size and said chambers on the other side being of a different substantially uniform size, said uniform thin

walls being .045 inch thick, the chambers on one side having an inscribed diameter of .550 inch and the chambers on the other side having an inscribed diameter of .472 inch.

3. A molded plastic cartridge loading block comprising two parallel plane sides, each side defining a plurality of substantially uniform square cartridge holding chambers, said chambers on one side being alternately staggered in opposed relationship to the chambers defined in said other side to form uniform thin walls therebetween, said chambers on one side being substantially of one uniform size and said chambers on the other side being of a different substantially uniform size, the chambers on one side having an inscribed diameter of .055 inch and the chambers on the other side having an inscribed diameter of .472 inch.

References Cited by the Examiner

UNITED STATES PATENTS

1,024,388	4/1912	Bartlett	206—17
2,926,809	3/1960	Studler	211—14 X
2,928,530	3/1960	Sauey	206—3
3,031,311	4/1962	Nakagawa	206—72 X

FOREIGN PATENTS

639,739	2/1935	Germany.
119,321	3/1927	Switzerland.

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