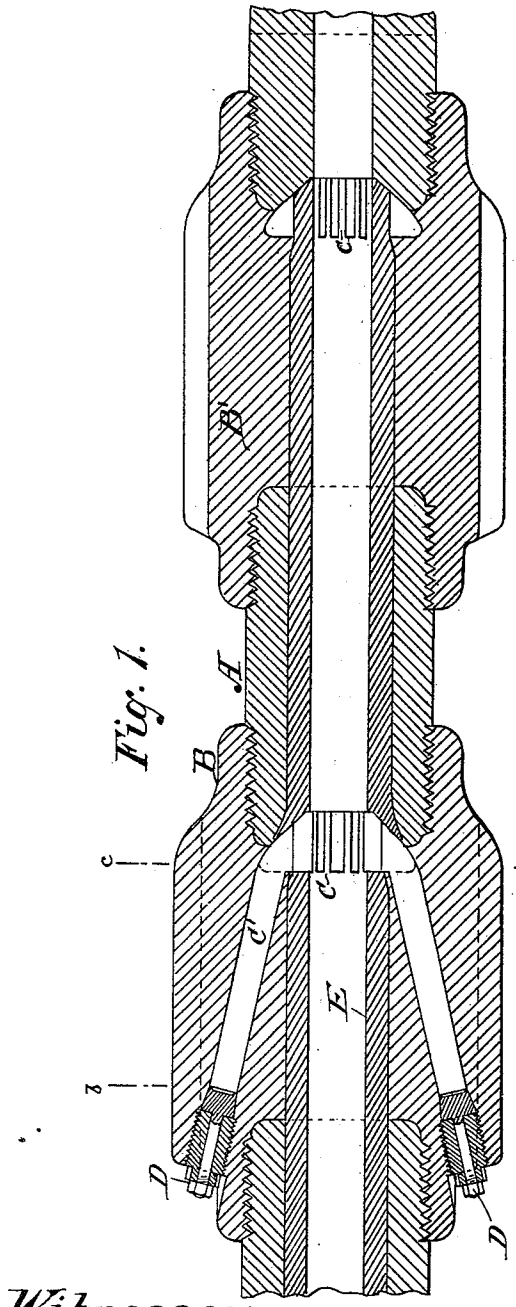
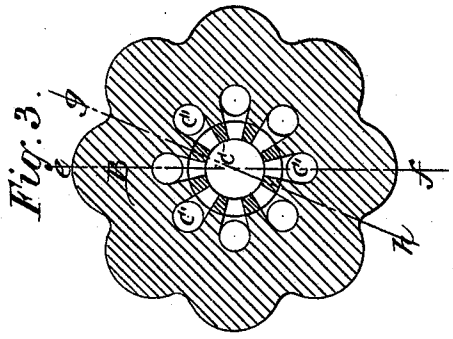
(No Model.)

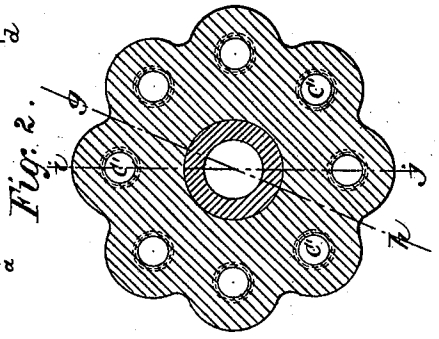
# J. R. HASKELL.

## MULTICHARGE GUN.

No. 484,007. Patented Oct. 11, 1892.




James R Haskell

Inventor.

Witnesses:

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

JAMES R. HASKELL, OF PASSAIC, NEW JERSEY, ASSIGNOR TO JULIA W. HASKELL, OF SAME PLACE.

## MULTICHARGE-GUN.

SPECIFICATION forming part of Letters Patent No. 484,007, dated October 11, 1892.

Application filed June 15, 1891. Serial No. 396,317. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES R. HASKELL, a citizen of the United States, residing at Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Multicharge-Guns, of which the following is a description.

My present invention relates to multicharge-guns; and it consists of certain novel parts and combinations of parts specifically pointed out in the claims concluding this specification.

Referring to the annexed drawings, Figure 1 is a longitudinal section through a gun embodying in a preferred form my present invention. Fig. 2 is a cross-section through the same on the line *a b*, Fig. 1. Fig. 3 is a cross-section through the same on the line *c d*, Fig. 1.

The following is a description of the gun illustrated in the annexed drawings, which show my invention applied in one of the forms which is at present preferred by me.

Fig. 1 of the drawings shows two charge-sections of the gun. Neither the breech nor the muzzle of the gun is shown, nor are the other charge-sections, assuming that the gun has more than two.

B B′ are two charge-sections, each being provided with a plurality of cartridge-pockets C′. The charge-section B is shown in longitudinal section on the line *i j*, Fig. 2, and *e f*, Fig. 3. The charge-section B′ is shown in longitudinal section through the line *g h*, Fig. 3, and does not, therefore, show the cartridge-pockets. Between the charge-sections B B′ is interposed a cylindrical section A, screwed into the forward end of the section-chamber B and into the back end of the charge-section B′.

D D are removable plugs closing the back ends of the cartridge-pockets.

E E is the lining of the bore of the gun.

C C are apertures through the lining, by means of which communication is established between the cartridge-pockets and the bore.

Similar cylindrical sections A are preferably interposed between each of the charge-sections throughout the entire length of the gun.

When a multicharge-gun is made of a single casting of unequal thickness or is made of a plurality of castings, each being of larger diameter where it contains the cartridge-pockets and of smaller diameter between them, the unequal expansion and contraction of the metal during the casting of the gun weaken the structure to a considerable degree. This is a serious matter in large guns containing much material and subjected to great strains. In the gun shown in the annexed drawings, on the other hand, each section is of substantially the same diameter throughout its entire length, and is therefore subject to the same conditions throughout its entire length, so that a casting of uniform and maximum strength is obtained. The difficulty to be avoided is therefore, from a practical standpoint, related to guns of comparatively-large size, in the construction of which comparatively-large castings are employed and the parts of which are subjected to a heavy strain in use. Another novel feature of this structure consists in separating by bridges each of the apertures in the bore through which a cartridge-pocket communicates with the bore of the gun.

As is now well understood in the art, multicharge-guns, a portion of one of which is shown in the drawings, operate on substantially the following plan: The projectile is started from the rear end of the bore by the explosion of a breech-cartridge, and as it proceeds toward the muzzle end it exposes in succession to fire the muzzle ends of the several supplemental charge-pockets or clusters of pockets, which are thereby, one after the other, exploded. The projectile, for example, provides a barrier between the exploding breech-cartridge and the cartridges contained in the supplemental pockets in section B until it passes the muzzles of such charge-pockets, when they are exposed to fire and are exploded, and it provides a barrier between these and the cartridges contained in the supplemental pockets in section B′ until it passes the muzzles of such charge-pockets, when they are exposed to fire and are also exploded. These supplemental charge-pockets are therefore arranged to discharge successively into the bore of the gun at different points upon the advancing projectile.

In the present state of the art no further

description of my invention is needed to enable any person skilled in the art to practice it in the form at present preferred by me.

What I therefore claim as my invention, and desire to secure by Letters Patent, is—

1. A multicharge-gun consisting of the combination of a plurality of separate sections of substantially-uniform diameter, the sections containing the charges and the intervening sections being separate and united together longitudinally to form the gun, said sections containing supplemental charge-pockets suitable for containing and firing explosives and arranged to discharge successively into the bore of the gun at different points upon the advancing projectile.

2. In a multicharge-gun, a series of supplemental charge-pockets arranged concentrically with the bore of the gun, combined with a series of bridges in the bore, one between each of the channels connecting the bore with said pockets, whereby the continuity of the bore is maintained from one section to another of the gun-barrel.

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Witnesses:
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