

J. E. TYLER.

GAS CHECK FOR FIRE ARMS.

No. 325,878.

Patented Sept. 8, 1885.

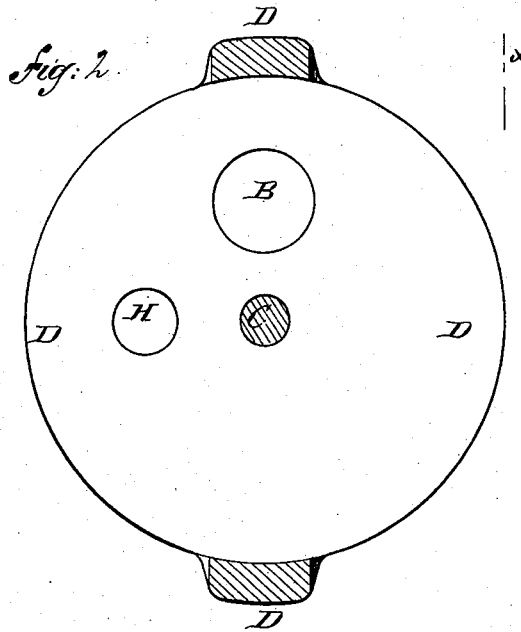
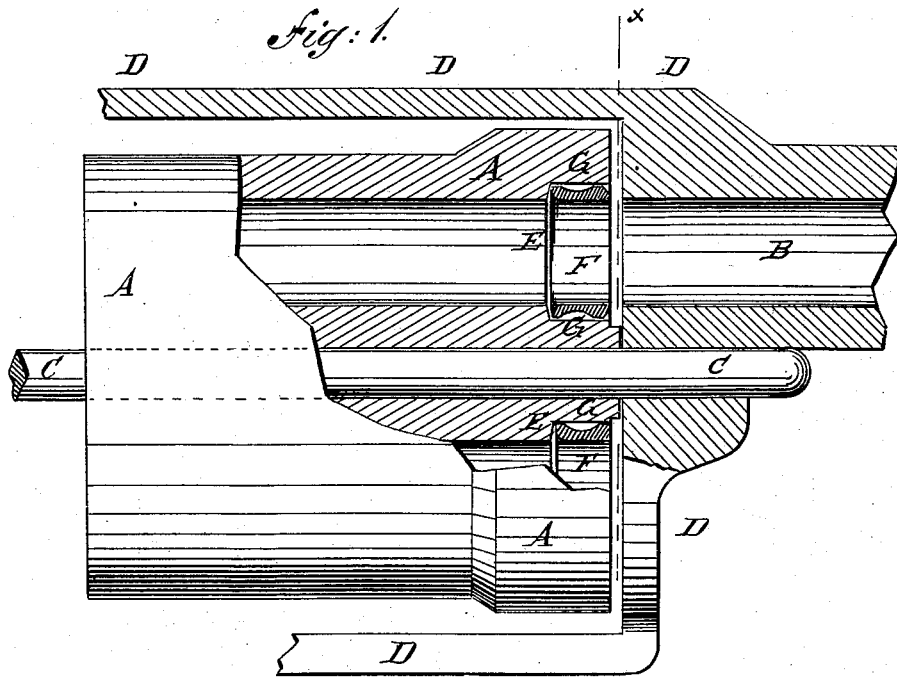


Fig. 3.

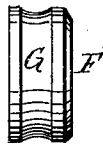


Fig. 4.

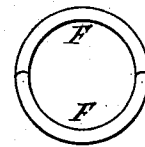
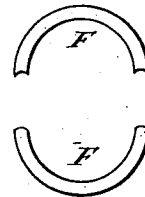


Fig. 5.



WITNESSES:

*Chas. Nida*  
*Co. Sedgwick*

INVENTOR:

*J. E. Tyler*  
 BY *Munn & Co.*  
 ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

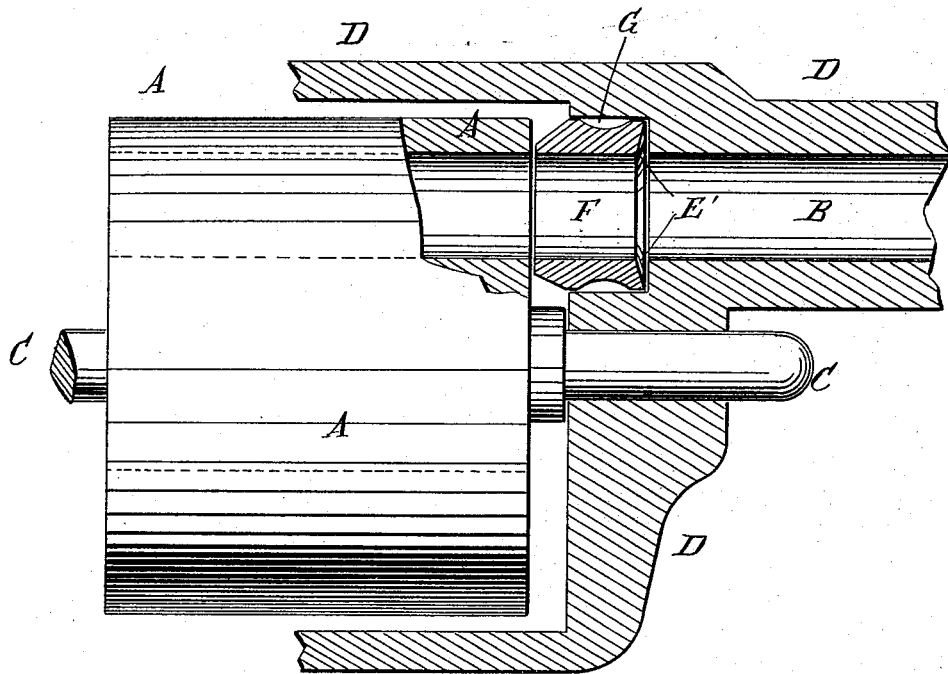
J. E. TYLER.

GAS CHECK FOR FIRE ARMS.

No. 325,878.

Patented Sept. 8, 1885.

*Fig: 6.*



WITNESSES:

*Chas. Nida*  
*C. Sedgwick*

INVENTOR:

*J. E. Tyler*  
BY *Munn & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN E. TYLER, OF ROXOBEL, NORTH CAROLINA.

## GAS-CHECK FOR FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 325,878, dated September 8, 1885.

Application filed April 9, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. TYLER, of Roxobel, in the county of Bertie and State of North Carolina, have invented certain new and useful Improvements in Revolving Fire-Arms, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, Sheet 1, is a side elevation, partly in section, of a part of a revolving fire-arm to which my improvement has been applied.

Fig. 2, Sheet 1, is a sectional end elevation of the same, taken through the line *x x*, Fig. 1.

Fig. 3, Sheet 1, is a side elevation of one of the gas-checks.

Fig. 4, Sheet 1, is an end elevation of the same.

Fig. 5, Sheet 1, is an end elevation of the same, but shown with the parts separated.

Fig. 6, Sheet 2, is a side elevation, partly in section, of a part of a revolving fire-arm, showing another arrangement of my improvement.

The object of this invention is to provide a means for preventing gas generated by the discharge of a cartridge from escaping through the space between the adjacent ends of the cylinder and barrel.

The invention consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

A represents a revolving cylinder; B, a barrel; C, the pin upon which the cylinder A revolves, and D the frame attached to or formed with the barrel B, and within which the cylinder A revolves.

The part of the frame D opposite the forward end of the cylinder A is made with a circular surface of the full size of the end of the cylinder, to cover the said forward end of the cylinder and prevent the gas-checks, hereinafter described, from dropping out.

In the cylinder A, at the forward end of each bore, is formed an annular recess, E, in which is placed a gas-check, F. The gas-check F is made in tubular form and in two parts. One of the adjacent edges of the parts of the gas-check F is grooved or recessed, and the other edge is rounded, as shown in Figs. 4 and 5, so that the said edges will center upon each other when they come together.

In the outer surface of the gas-check F is formed a shallow annular recess or groove, G, to receive a small portion of the gas, the expansion of which, when the projectile has escaped from the barrel, will loosen the said gas-check and allow it to move freely in its seat, so that it cannot press so closely against the frame D as to interfere with the revolution of the cylinder A. With this construction, when a cartridge is discharged, the friction of the projectile or the pressure of the generated gases will force the gas-check F forward, so as to cover the space between the adjacent ends of the cylinder A and barrel B, and thus prevent the escape of the said gases through the said space. As the projectile escapes from the barrel B the liberation of the gas confined within the cylinder A and barrel B allows the small portion of the gas in the annular recess G to expand and loosen the gas-check F, so that the friction of the said gas-check against the frame D will not impede the revolution of the cylinder A.

In the arrangement shown in Fig. 6 the gas-check F is placed in a recess, E', formed in the barrel B at the rear end of its bore. In this case the forward end of the gas-check F should be made thicker than its rear end, as shown in Fig. 6, and the said forward edge should be beveled inwardly, as shown in Fig. 6, so that when the projectile has passed the gas-check the powder-gas will enter the space between the said forward end of the gas-check and the shoulder at the forward end of the recess E', and force the said gas-check to the rearward, so as to prevent the escape of any more powder-gas between the cylinder and barrel than what escaped during the time the projectile was passing the said gas-check.

In this improvement, by making the gas-checks F in two parts, each gas-check will be forced open by the pressure of the gas, and thus made to fit tightly against the walls of its recess, so that no gas can escape between the outer surface of the gas-check and the inner surface of its recess, and at the same time gas will be prevented from escaping between the adjacent ends of the cylinder and barrel of the fire-arm. After the projectile has left the barrel the two parts of the gas-check can come together again, allowing the said gas-check to move easily backward or

55

60

65

70

75

80

85

90

95

100

forward in its recess, so that there will be no friction between the gas-check and the barrel to prevent the free revolution of the cylinder. In the same manner friction between the gas-check and the cylinder will be prevented when the gas-check is inserted in a recess in the base of the barrel.

In a side part of the forward end of the frame D is formed a perforation, H, through which an extractor can be inserted to remove the cartridge-shells.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a revolving fire-arm, the combination, with the cylinder and barrel, of a gas check made in two longitudinal sections, a recess being formed at the juncture of the cylinder and barrel bores to receive said gas check, substantially as set forth.

2. In a revolving fire-arm, the tubular gas-check formed in two longitudinal sections, the meeting edges of said sections fitting within each other, substantially as set forth.

3. In a fire-arm, the tubular gas-check formed in two longitudinal sections grooved on their outer surfaces, substantially as set forth.

4. As an improved article of manufacture, a tubular gas-check for revolving fire-arms, formed in two longitudinal sections and provided with a groove around its outside and beveled inward at one end, substantially as set forth.

5. In a fire-arm, the tubular gas-check formed of two longitudinally-divided sections, substantially as set forth.

6. In a revolving fire-arm, the combination, with the barrel B, having an annular recess, E', at the rear end of its bore, the cylinder A, and the frame D, of the gas-check F, made in two parts and placed loosely in the said recess of the barrel, substantially as herein shown and described, whereby gas generated by the discharge of a cartridge will be prevented from escaping through the space between the revolving cylinder and the barrel, as set forth.

JOHN E. TYLER.

Witnesses:

PRESTON CHARLES JENKINS,  
ASA T. LIVERMAN.