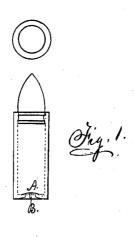
## B. C. ENGLISH. Cartridge

 $\left. \begin{array}{l} \text{No. } 2,425. \\ \text{No. } 33,429. \end{array} \right\}$ 

Patented Oct. 8, 1861.



A dry 2.

B. C. English

helmeses Grundbull Maga W. Goerd

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

## United States Patent Office.

B. C. ENGLISH, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN CARTRIDGE-CASES.

Specification forming part of Letters Patent No. 33,429, dated October 8, 1861.

To all whom it may concern:

Be it known that I, B. C. ENGLISH, of Hartford, county of Hartford, and State of Connecticut, have invented a new and useful improvement upon the cartridge-case invented and patented by Gilbert Smith, Patent No. 17,702; and I do hereby declare that the following is a full description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists of providing the cartridge-case with a metallic bushing, to the vent or point of ignition, for the purpose of preventing the cartridge-case from being rendered unserviceable by the enlargement of the vent, consequent upon the action of the fire, at every discharge.

Figure 1 of the accompanying drawings represents a cartridge-case complete, with the

metallic bushing A. B is the vent or hole through which the fire passes to ignite the charge.

Fig. 2 is the metallic bushing separate from the cartridge-case. This can be made of any metallic substance capable of withstanding the action of the flame as thrown through it from the cap or primer.

What I claim as my invention, and desire

to secure by Letters Patent, is-

The application and use of a metallic bushing to the india-rubber cartridge-case patented by Gilbert Smith, patent 17,702, for the purposes herein described and set forth.

B. C. ENGLISH.

Witnesses:

WM. W. GOWDY, GEORGE G. SILL.