

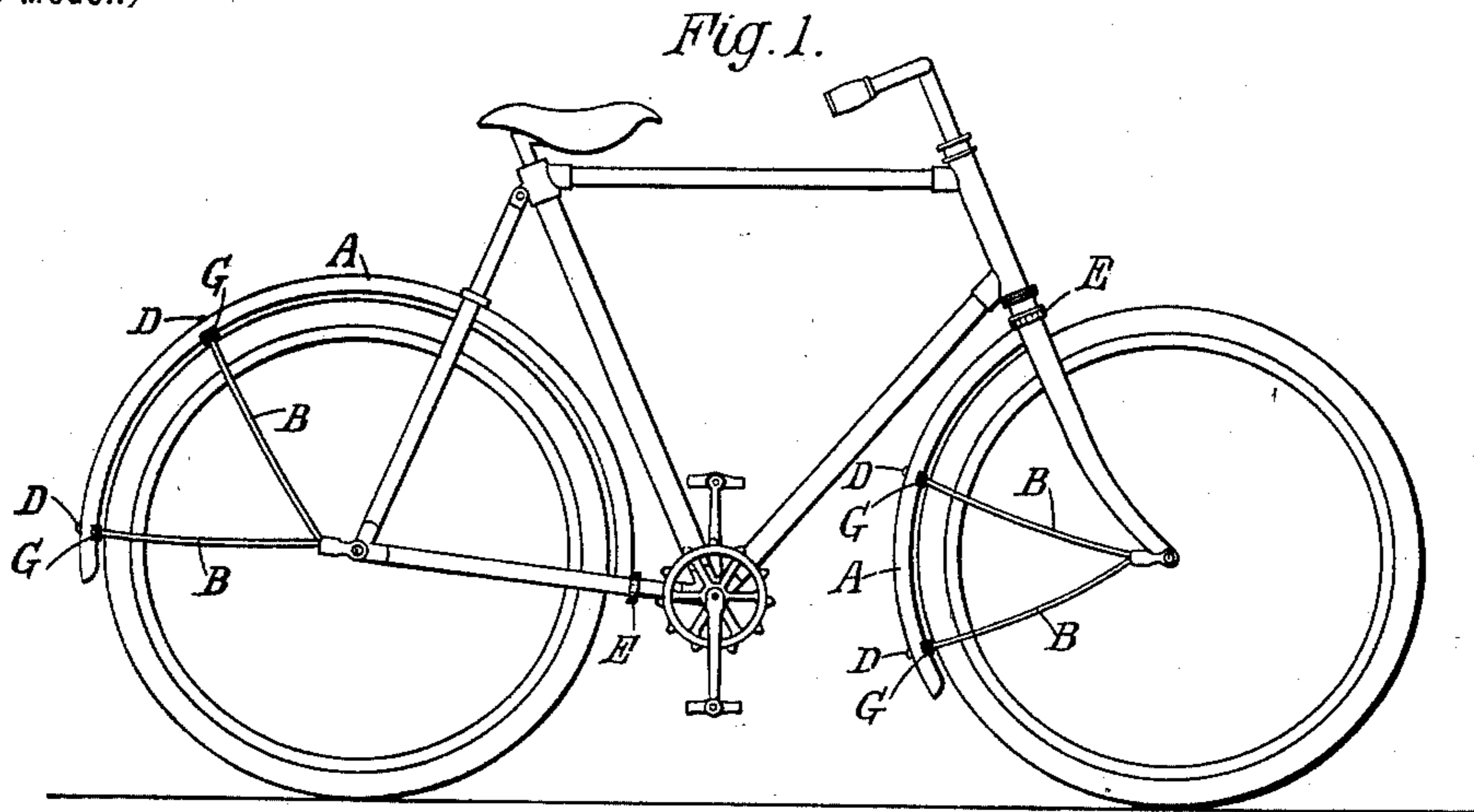
No. 703,228.

Patented June 24, 1902.

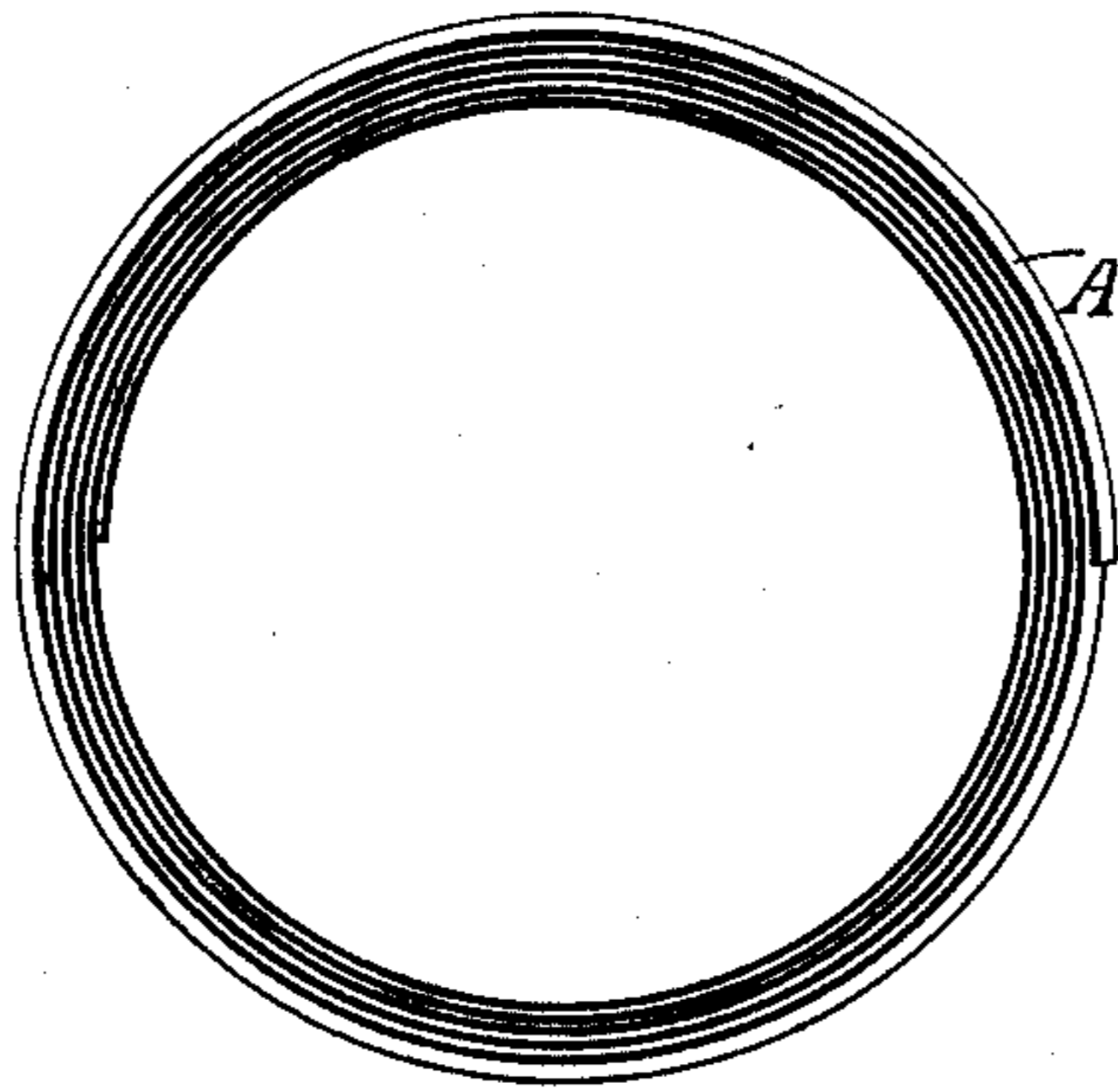
C. W., F. H. & E. A. BLUEMEL.  
STOWAWAY MUD GUARD FOR VELOCIPEDES OR THE LIKE.

(Application filed Mar. 3, 1902.)

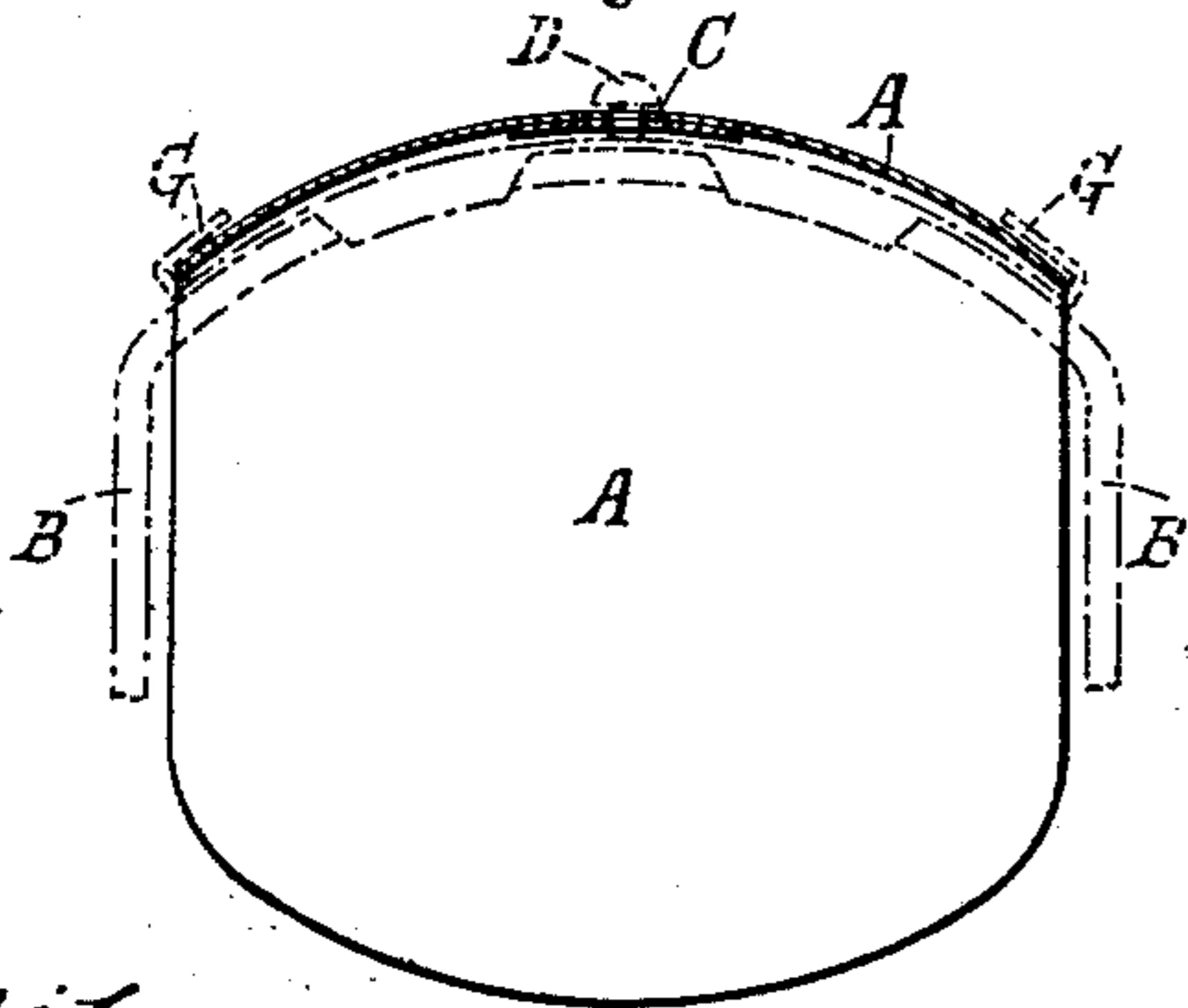
(No Model.)



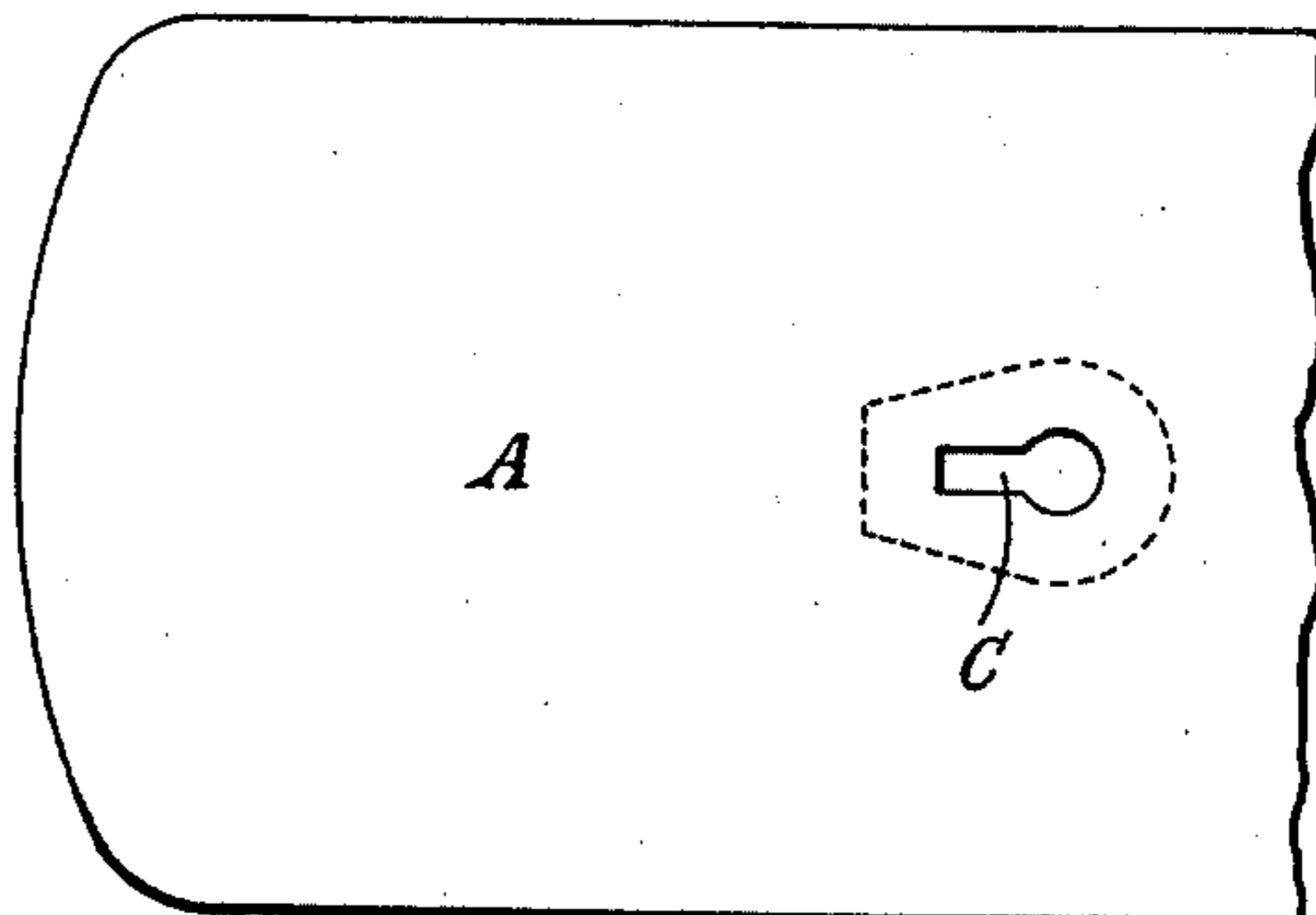
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses:*

*J. B. Keefe*  
*W. H. Clarke*

*Inventors*  
*Charles W. Bluemel*  
*Frank H. Bluemel*  
*Ernest A. Bluemel*  
*By James L. Norris*

*Atty*

# UNITED STATES PATENT OFFICE.

CHARLES WILLIAM BLUEMEL, FRANK HENRY BLUEMEL, AND ERNEST ADOLPHUS BLUEMEL, OF LONDON, ENGLAND.

## STOWAWAY MUD-GUARD FOR VELOCIPEDES OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 703,228, dated June 24, 1902.

Application filed March 3, 1902. Serial No. 96,473. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES WILLIAM BLUEMEL, FRANK HENRY BLUEMEL, and ERNEST ADOLPHUS BLUEMEL, subjects of the  
5 King of Great Britain, residing at London, England, have invented certain new and useful Improvements in Stowaway Mud-Guards for Velocipedes or the Like, of which the following is a specification.

10 This invention relates to a detachable mud-guard for the wheels of velocipedes and the like, which mud-guard is constructed of such material and is so shaped that when mounted on its supports around the wheel it possesses  
15 sufficient rigidity to prevent rattling and to answer all the purposes of an efficient mud-guard and at the same time will admit of being rolled up and stored away in a small case when not in use.

20 Our improved mud-guard is made of celluloid, xylonite, or like material molded to the curvature it is desired to have when applied to the wheel—that is to say, it is curved in two directions at right angles to each other—  
25 viz., longitudinally and transversely—and is provided with eyelet-holes, reinforced or not, at the edges for passing over the retaining studs or pins of the supporting-stays, the edges of the guard being held between the turned-  
30 over or hooked edges of the said stays.

Detachable mud-guards of celluloid have been used prior to our present invention; but the same have not possessed the feature of rigidity when applied to the wheel combined  
35 with a capability of being rolled up into a small compass to admit of being stowed away conveniently.

Referring to the accompanying drawings, which illustrate a mud-guard constructed according to our invention, Figure 1 is a side  
40 view of a bicycle with mud-guards constructed according to our invention applied thereto. Fig. 2 shows, on a larger scale, the guard detached and rolled up ready to be stowed  
45 away. Fig. 3 is a transverse section of the

guard; and Fig. 4 is a plan of a portion of the guard, showing one of the eyelet-holes for attaching the guard to the supports.

The guard A is made of celluloid, xylonite, or like material, molded in suitable molds, having a radius substantially the same as or a little larger than that of the wheel to which the guard is to be applied. Said guard is also curved in the transverse direction, as shown clearly in Fig. 3, the concave side facing the  
50 wheel. By reason of its shape this guard resists force which tends to bend it backward or flatten it or cause it to assume a curvature having a larger radius than that to which it was originally molded, while, on the other  
55 hand, it can be rolled up with perfect freedom into a compact roll, as indicated in Fig. 2.

When the guard is applied to the wheel and held out by its supporting-stays B, it is quite rigid and will not rattle when in use,  
60 nor will it get out of shape, and so be liable to touch the wheel. The rolling up of the guard does not impair its rigidity when extended, but, on the other hand, tends to stiffen the material, and so increase the rigidity.  
65

We may adopt any suitable means for fastening the guard to the stays and frame, bearing in mind that such fastening means should not involve the use of projections on the guard which would interfere with the rolling  
70 up of the latter when not in use. We prefer to employ for attachment purposes eyelet-holes C in the guard, which may, if desired, be reinforced by extra thickness of material at the edges, said eyelet-holes engaging with headed pins D on the wire stays B.  
75 The said stays are also furnished with over-turned edges G G to receive the edges of the guard. The forward ends of the guards are attached to clips E, secured on the frame.  
80

What we claim is—

1. A cycle mud-guard made of celluloid and molded with a curvature in two directions at right angles so that it will roll up into a small  
85 compass and when unrolled will be rigid, said 90

guard being perforated to permit of attachment to the stays, in combination with said stays for keeping the guard extended when on the machine and headed projections on the stays passing through and locking with the perforations in the guard substantially as described.

2. A mud-guard for vehicle-wheels composed of a relatively thin and flexible strip of celluloid or similar material, said strip being molded with a curvature in two directions at right angles, viz: longitudinally and trans-

versely, and capable of being rolled up into small compass when detached.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

CHARLES WILLIAM BLUEMEL.  
FRANK HENRY BLUEMEL.  
ERNEST ADOLPHUS BLUEMEL.

Witnesses:

WALTER J. SKERTEN,  
G. F. WARREN.