

(No Model.)

C. E. WILKINSON.  
SHUTTLE FOR SEWING MACHINES.

No. 524,815.

Patented Aug. 21, 1894.

Fig. 1.

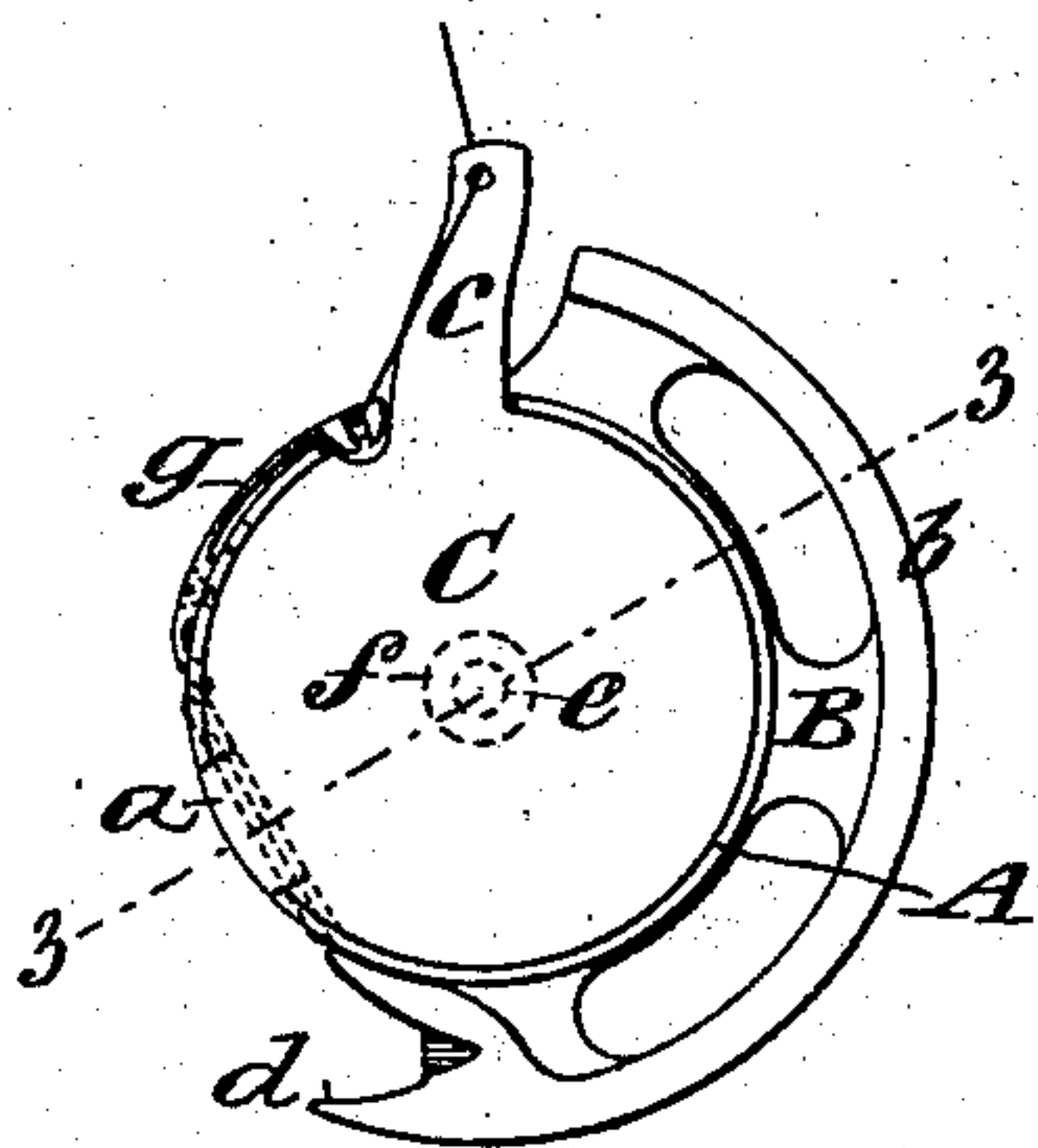


Fig. 3.

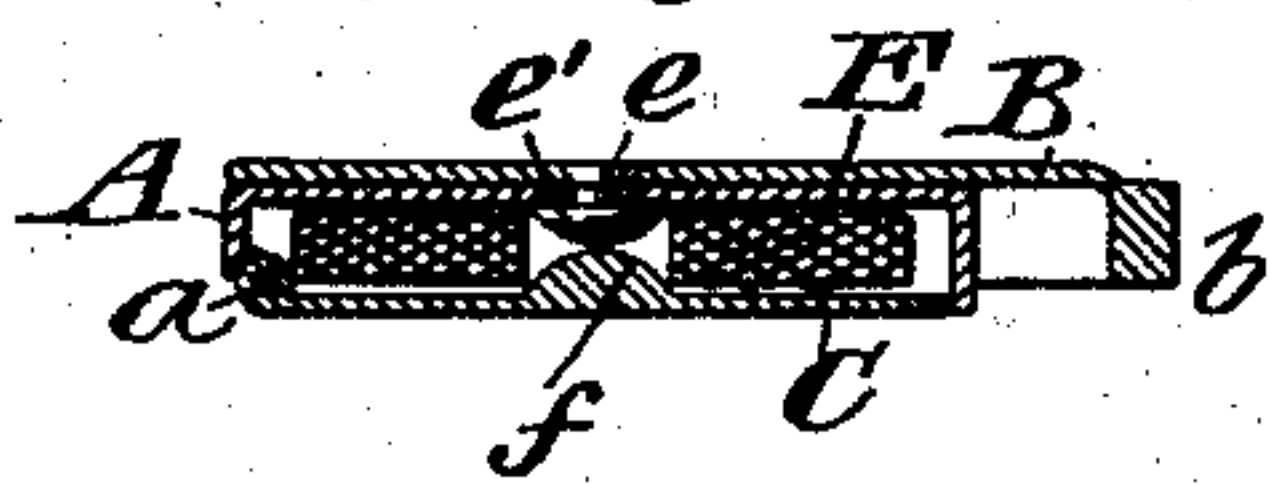


Fig. 2.

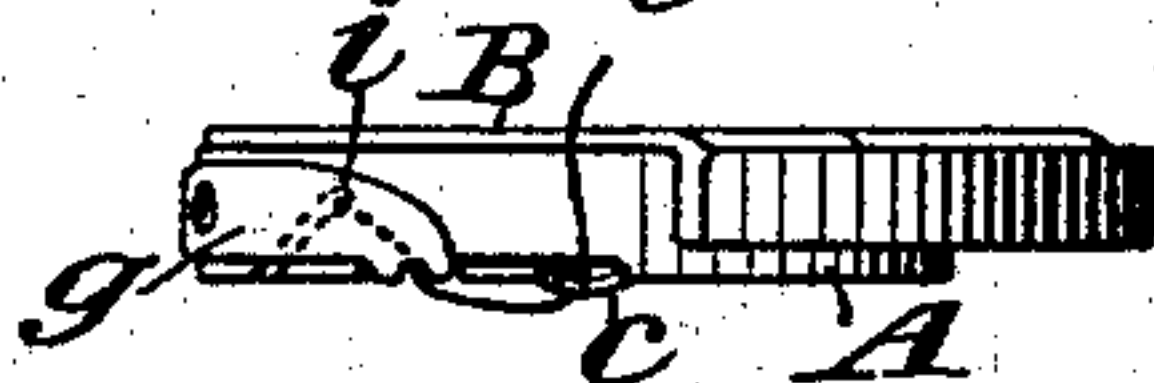
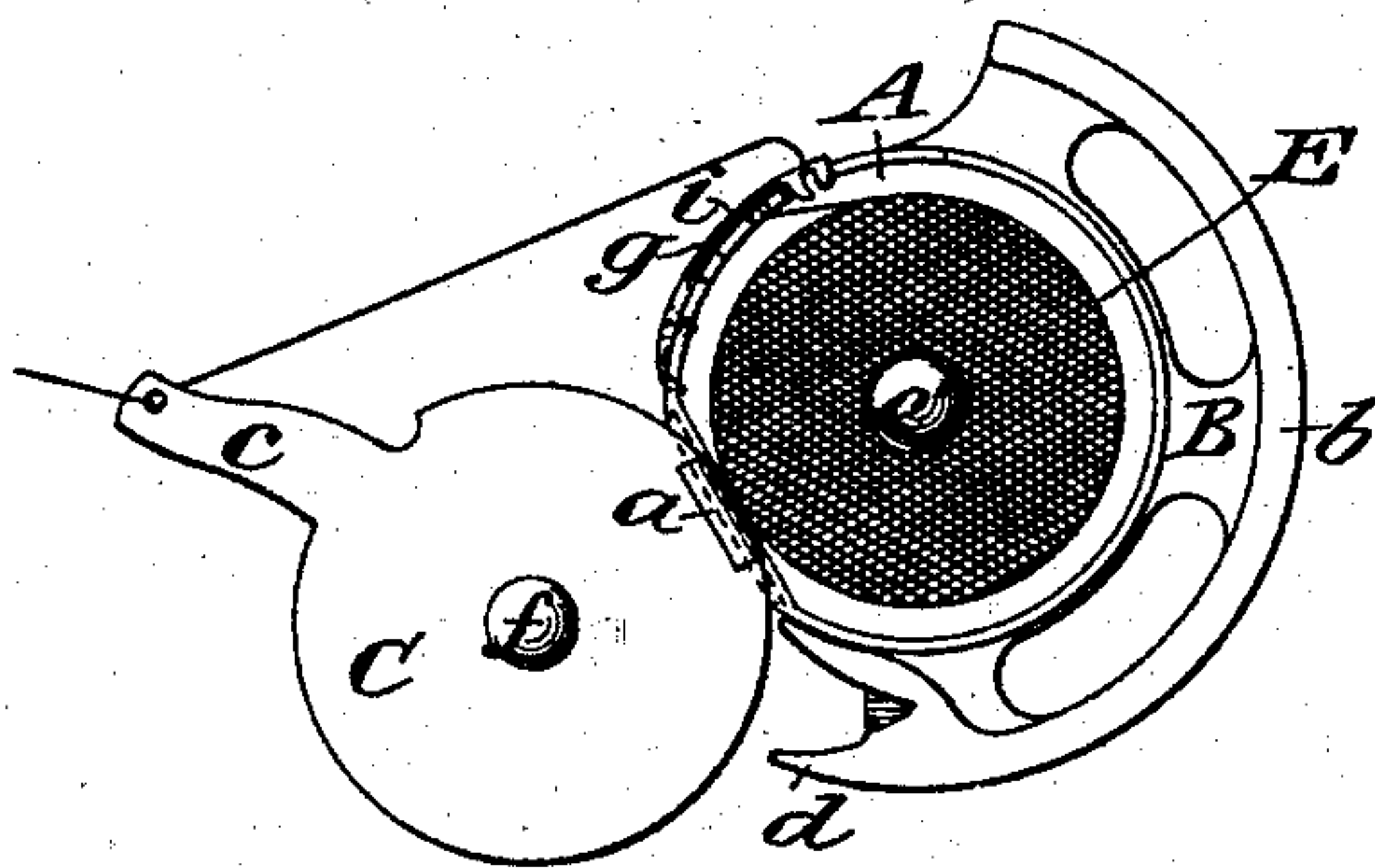


Fig. 4.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

CHARLES E. WILKINSON, OF NEW HAVEN, CONNECTICUT.

## SHUTTLE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 524,815, dated August 21, 1894.

Application filed June 12, 1894. Serial No. 514,280. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. WILKINSON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Shuttles for Sewing-Machines, of which the following is a specification.

This improvement is applicable to shuttles which have a circular movement about the center of their contained bobbin. I have selected for illustration an oscillating shuttle of the Singer type.

Figure 1 represents a front view of the shuttle in condition for operation; Fig. 2 a top view of the same; Fig. 3 a central transverse section in the line 3, 3, of Fig. 1; Fig. 4 a front view of the shuttle open to expose the bobbin.

Similar letters of reference designate corresponding parts in all the figures.

The shuttle consists of three principal parts, viz: a cup-shaped receptacle A for the cop or bobbin, a flanged plate B, and a cover C for said receptacle. The cover C is represented as hinged to the receptacle A by a hinge *a*, the receptacle and cover together forming a circular box to inclose the cop or bobbin E. The cover C is fitted tightly enough to the interior of the box to close with a snap and retain itself closed and it is represented as provided with a projecting arm *c* by which, when the cover is closed and the shuttle is in place the bobbin receptacle C is held stationary. The plate B lies close against the bottom or back of the box A and conforms to the periphery of the box except that it has a flange *b* which projects beyond the said periphery and terminates in a hook *d* for taking the loop of the needle thread. The said plate B and the receptacle A are centrally pivoted together by a pivot *e* the head *e'* of which has a rounded face. This pivot passes freely through a pivot hole in the back of the box and is secured firmly in any suitable manner as by riveting to the plate B. The head *e'* of the pivot forms within the box a teat-like projection. On the inner face of the cover C there is formed a teat or projection *f* corresponding with that *e'* formed in the back of the box by the head of the pivot *e*. These two rounded projections or teats *e'* *f* enter the opposite ends or

sides of the eye of the cop or bobbin E when the latter is placed within the shuttle and the cover C closed. They are then entirely free from each other but form centers between and about which the cop or bobbin rotates with all the freedom necessary.

It will be observed that the pivot *e* serves three purposes, viz: as a means of attaching the cop or bobbin receptacle A to the plate B, as a pivot upon which the said plate with its flange oscillates about the receptacle A, and as one of the teat-like projections by which the cop or bobbin is centrally engaged.

The receptacle A has an eye at *i* for the exit of the thread and is represented as furnished externally with a tension spring *g*, but such tension spring however, forms no part of the present invention. This construction of the shuttle permits the greatest freedom of operation to the cop or bobbin and it prevents any fouling of the thread around the central support of the cop or bobbin such as often occurs when such central support consists of a pivot extending through said cop or bobbin. This construction permits the use without any difficulty, of naked cops, that is to say, cops having no covering on their sides, as in case of the thread in unwinding slipping over either side of the bobbin it will pass over freely between the two teats or rounded centers *e'* *f*.

What I claim as my invention is—

1. The combination in a sewing machine shuttle, of a cup-formed receptacle for a cop or bobbin, a plate pivoted centrally to said receptacle and having projecting beyond the periphery of said receptacle a flange terminating in a hook, and a cover for closing said receptacle, said receptacle and said cover being each provided with a round-faced internal projection or teat, the said projections or teats being entirely free from each other and one engaging with the eye of the bobbin on one side thereof and the other engaging therewith on the other side, substantially as herein set forth.

2. The combination in a sewing machine shuttle, of a cup-formed receptacle for a cop or bobbin having a central pivot, a plate pivoted to said receptacle by said central pivot and having projecting beyond the periphery

of said receptacle a flange terminating in a hook, and a cover for closing said receptacle, said receptacle and said cover being respectively provided with round-faced internal projections or teats to engage the opposite ends of the eye of the cop or bobbin, and one of the said teats consisting of the head of the

said central pivot, substantially as herein set forth.

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Witnesses:

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