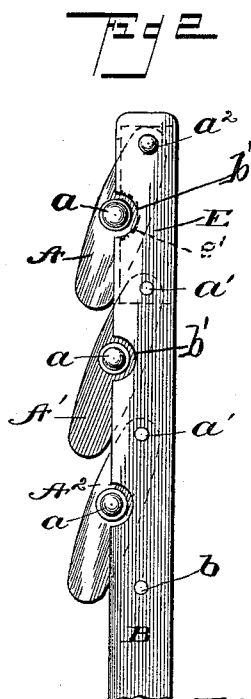
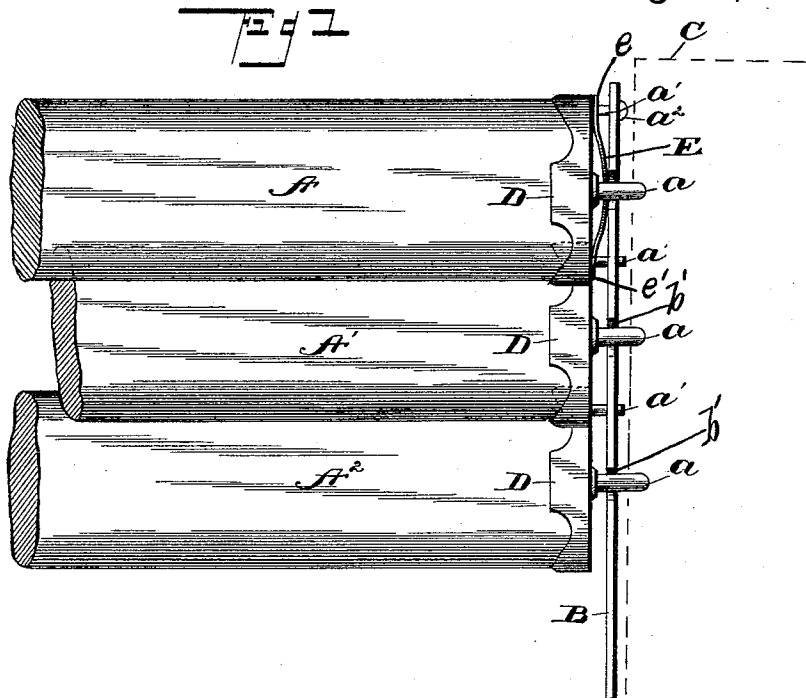


(No Model.)

E. STOEPPELWERTH & C. H. KNEFELKAMP.
WINDOW BLIND.

No. 481,077.

Patented Aug. 16, 1892.



Witnesses
W. W. Deane

Inventors
*Edward Stoepfelwerth and
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their Attorney

UNITED STATES PATENT OFFICE.

EDWARD STOEPPELWERTH AND CHARLES H. KNEFELKAMP, OF ST. LOUIS,
MISSOURI.

WINDOW-BLIND.

SPECIFICATION forming part of Letters Patent No. 481,077, dated August 16, 1892.

Application filed November 27, 1891. Serial No. 413,271. (No model.)

To all whom it may concern:

Be it known that we, EDWARD STOEPPELWERTH and CHARLES H. KNEFELKAMP, of St. Louis, Missouri, have made a new and useful Improvement in Window-Blinds, of which the following is a full, clear, and exact description.

The improvement relates more especially to the means for operating the slats of the blind, substantially as is hereinafter described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is an outside elevation exhibiting a sufficient portion of the construction for an understanding of the improved features thereof, and Fig. 2 an edge elevation of the same.

The entire blind is not shown, it being of the usual construction, saving as it may be modified or supplemented by the improvement under consideration.

A A' A² represent some of the slats of the blind. The uppermost slat A may be the upper one of a series of slats to be operated by the slat-rod B. This last-named part is in practice a metal strip arranged between the slats and the stile (indicated by the broken lines C) and jointed to the slats in such a manner that when the rod is adjusted upward and downward the slats are closed and opened accordingly. The slat-journals *a* are held and adapted to be rotated in bearings in the stile in the usual manner, but which are not shown, being of a familiar nature. The slats are connected with the rod by means of the studs or pins *a'*, which are attached to the slats, respectively, and engage loosely in perforations *b* in the rod, substantially as shown. Said journals and pins are preferably attached to or made part of caps D, which in turn are secured to the slats, respectively, substantially as shown. The slats are thus united to a part which can occupy and be operated in the narrow space which usually exists between the ends of the slats and the stile, and the rod which is generally applied to the slats between their ends can be and is dispensed with, leaving the spaces between the slats when the slats are opened free of obstruction. To hold the slats at any desired point of adjustment, we bind

the slat-rod frictionally at one or more points and sufficiently to cause the rod and slats to remain in any position into which they may have been adjusted, but not so they cannot yield when it is desired to readjust them. The friction-pressure referred to is exerted laterally against the slat-rod by means of a spring-plate E, which at one side presses against the slats and at the other side against the slat-rod and sufficiently to exert the desired tension thereon. The plate at its ends *e e'* is attached to the pins *a' a'* of the slats A A', respectively, and between its ends the plate bears against the slat-rod B, substantially as shown. The plate E can thus be held always in place to act upon the slat-rod, and at the same time occupying but little room. The slat-rod is notched at *b'* to enable it to pass around the slat-journal when the slats are closed. The plate E is notched at *e'* for a similar purpose, as indicated in dotted lines. The pin *a'* upon one or more of the slats—say the slat A—is headed, substantially as shown at *a²*, to provide a shoulder for the slat-rod to bear against, substantially as shown.

We do not broadly claim means for retaining the slats of a blind frictionally in position.

We claim—

1. The combination of the journaled slats provided, respectively, with the pins, the slat-rod jointed to said pins, and the friction-plate attached to the pins of adjoining slats and bearing against said slat-rod, substantially as described.

2. The combination of the slats, the caps attached, respectively, to said slats, and each provided with a journal and pin, the slat-rod jointed to said slat-pins, and the friction-plate attached to the pins of the slats and bearing against the slat-rod, substantially as described.

Witness our hands this 19th day of November, 1891.

EDWARD STOEPPELWERTH.
CHARLES H. KNEFELKAMP.

Witnesses:

C. D. MOODY,
A. BONVILLE.