E. C. SPEIDEN.

UMBRELLA.

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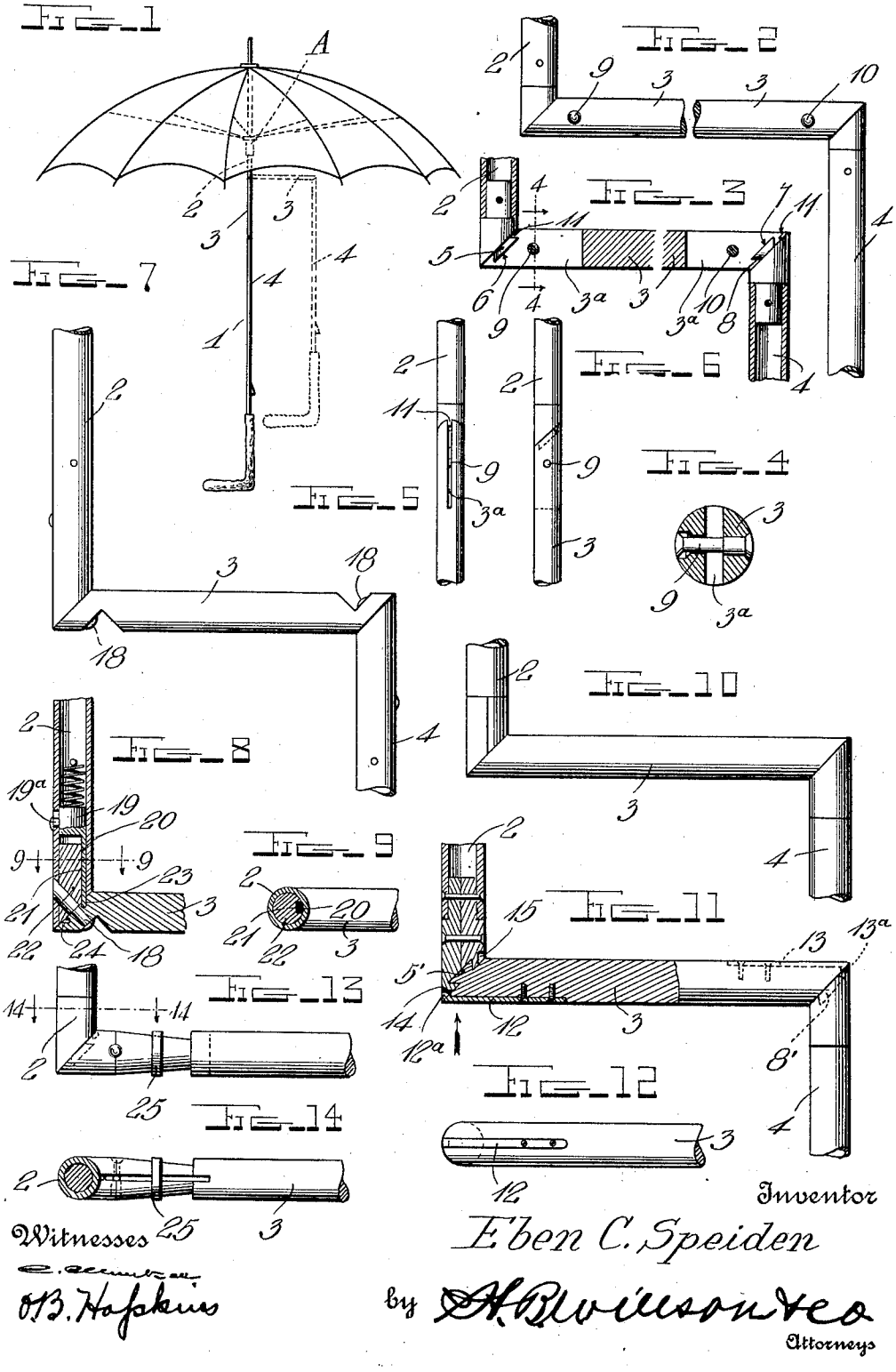
1,007,812. Patented Nov. 7, 1911.



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UMBRELLA.

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To all whom it may concern:

Be it known that I, EBEN C. SPEIDEN, a citizen of the United States, residing at Niagara Falls, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Umbrellas; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in umbrellas.

The object of the invention is to provide an umbrella stick or rod so constructed that it may be quickly thrown into offset position to enable the user to hold the umbrella centrally over his head instead of to one side thereof, and thereby be more fully protected, and which may be readily straightened to permit the umbrella to be lowered.

Another object is to construct a jointed rod of this character which will permit the runner of the umbrella to readily pass over the joints of the rod when it is straightened, to provide for the raising and lowering thereof.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 represents a side elevation of an improved umbrella having a rod constructed in accordance with this invention and shown in offset position in dotted lines, and in straight position in full lines; Fig. 2 is a detail side elevation on an enlarged scale of a portion of the rod with the parts in offset position; Fig. 3 is a central vertical longitudinal section with the parts in the same position; Fig. 4 is a transverse section on the line 4—4 of Fig. 3; Fig. 5 is a detail side elevation with the sections in longitudinal alinement; Fig. 6 is a front elevation thereof; Fig. 7 is a side elevation showing a slightly modified form and with parts in offset position; Fig. 8 is a central longitudinal section of the form shown in Fig. 7; Fig. 9 is a horizontal section taken on the line 9—9 of Fig. 8; Fig. 10 is a side elevation showing another modification and with the parts in offset position; Fig. 11 is a central longitudinal section of the form shown in Fig. 10; Fig. 12 is an end elevation looking in the direction of the arrow *a;* Fig. 13 is a side elevation of another modification; Fig. 14 is a horizontal section taken on the line 14—14 of Fig. 13 looking in the direction of the arrow.

In the embodiment illustrated, an umbrella rod or stick 1 is shown composed of a plurality of pivotally connected sections, which may be either solid or tubular as desired, three sections, 2, 3 and 4 being here shown with the intermediate section 3 connected at its opposite ends to the upper section 2 and the lower or handle section 4. The meeting ends of these sections are beveled at any suitable or desired inclination to provide for the offsetting of the handle section at any desired angle, and suitable means are provided for locking the sections in adjusted position. As shown, these meeting ends are beveled at about forty-five degrees to provide for the offsetting of the handle section at an angle of about ninety degrees. It will, however, be obvious that the invention is not limited in this respect, as the handle may be offset at any desired angle capable of accomplishing the object sought. The joints between these sections may be constructed in any suitable or desired manner capable of producing a smooth exterior of uniform diameter to permit the runner A of the umbrella frame to slide freely thereover when the sections are arranged in longitudinal alinement, to enable the umbrella to be easily raised and lowered.

In the form shown in Figs. 1 to 6 and 13, the meeting ends of the sections are beveled at an angle of about forty-five degrees, and the beveled end of the upper section 2 has an undercut disk-like projection or head 5, of less diameter than the diameter of the section, which extends centrally from said end and fits in an undercut centrally disposed circular recess or socket 6 formed in the adjacent end of the intermediate section 3, forming when assembled a dove-tailed connection between the two sections, the sections being revoluble relatively to each other. The other end of the section 3 is provided with a similar socket 7 to receive a projection or head 8 on the adjacent upper end of the handle section 4, said head being similar in construction to the head 5 on the section 2. The socket ends of the intermediate section 3 are slotted longitudinally as shown at 3^a, to provide resilient clamping

jaws capable of being sprung apart to permit the insertion in the sockets 6 and 7 of the section 3 of the projections or heads 5 and 8 on the end sections.

Rivets or pins 9 and 10 for limiting the extent of separation of the jaws, extend transversely through the pairs of jaws at the opposite ends of the section 3 at points intermediate of their ends. These pins are fixed at one end to one jaw and slide loosely in the other jaw. The free end of each of these pins is upset and countersunk in the movable jaw to form a stop for limiting the outward movement of the jaws relatively to each other, sufficient movement only being permitted to allow the disengagement from the slots of section 3 of the locking lugs now to be described. The upper section 2 and the handle section 4 adjacent one edge of their beveled faces, at points beyond the heads 5 and 8, are provided with lugs as 11 which are adapted to alternately engage the opposite ends of the slots as 3^a to lock the section 3 in either offset or straight position. The resiliency of the jaws formed by the slotted socketed ends of the section 3 permits these lugs to be disengaged from said slots when the sections 3 and 4 are turned forcibly, and the pins serve to prevent the sections from being separated. In the form shown in Figs. 7 and 8 the sections 2, 3 and 4 have their meeting ends beveled similarly to the sections shown in the other figures, but the connecting heads and sockets of said figures are dispensed with and pivot pins as 18 are substituted therefor. These pins 18 are preferably fixed at one end to one section and extend at right angles from the beveled face thereof and loosely engage the beveled end of the adjacent section.

A spring pressed plunger 19 is mounted to slide in the section 2 and is preferably constructed with a depending finger 20 which slides in a groove 21 of a filling piece 22 mounted in the lower end of the section 2, the free end of said finger being adapted to yieldably engage notches 23 and 24 formed in the beveled face of the adjacent end of the section 3 according to the position in which said section is turned, said finger serving to lock the section yieldably in adjusted position. This flange is provided with an actuating thumb piece 19^a which projects through a slot in the wall of section 2.

A similar plunger (not shown) is mounted in the handle section 4 and the finger thereof is adapted to engage notches in the adjacent beveled face of the section 3 to lock said handle section 4 yieldably in adjusted position relative to the section 3 in the same manner in which sections 2 and 3 are locked.

In the form shown in Figs. 11 and 12 the sections are similar to those shown in Figs. 1 to 6, except that the heads 5′ and 8′ are formed on the opposite ends of the section 3 and the coacting sockets are formed in the adjacent faces of the sections 2 and 4. In these figures slightly different locking means for the sections are shown comprising plate springs 12 and 13 which are countersunk in opposite faces of the section 3 in opposite ends thereof and secured at one end to said section by rivets or other suitable fastenings, the free ends of said springs extending slightly beyond the ends of the section 3 and provided with inwardly extending lugs 12^a and 13^a which are respectively designed to engage notches 14 and 15 in the section 2 and similar notches in the section 4, according to the position into which the sections 3 and 4 are turned.

In the form shown in Figs. 13 and 14 the sections are similar to those shown in the first described figures, the locking means being also similar. In this form, however, auxiliary means are provided to render the locking positive, and said means preferably comprises a slip-ring 25 which slides longitudinally on the outer faces of the jaws to lock them against springing apart, the outer faces of said jaws being tapered to permit the ring to have a wedge-like action thereon and yet permit the runner to slide freely thereover.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention claimed.

I claim as my invention:—

1. An umbrella rod comprising intermediate and end sections having beveled meeting ends, and a pivotal connection between each end of the intermediate section and the respective end of an end section, the axes of said pivotal connections being at right angles to the meeting beveled edges, and means for locking the sections in alinement, or at angles to each other.

2. An umbrella rod comprising intermediate and end sections having beveled meeting ends, and a pivotal connection between each end of the intermediate section and the respective end of an end section, said pivotal connections comprising a circular undercut recess in one beveled surface and an undercut circular head projecting from the other beveled surface and fitting revolubly in the recess, the axes of the heads and recesses being in alinement and at right angles to the beveled meeting surfaces, and means for locking the sections in alinement, or at angles to each other.

3. An umbrella rod joint comprising sec-

tions having their meeting ends beveled, one of said meeting ends being provided on its inclined surface with a laterally projecting undercut circular head and the other with a correspondingly shaped socket to receive said head the axes of said head and socket being in alinement and at right angles to the beveled surfaces whereby the sections may be turned relatively to each other, and means for locking said sections in adjusted position.

4. An umbrella rod joint comprising rod sections having their meeting ends beveled, one of said meeting ends being provided on its inclined face with a laterally projecting undercut centrally disposed circular head and the other with a correspondingly shaped and arranged socket to receive said head the axes of said head and socket being in alinement and at right angles to the beveled surfaces, whereby the sections may be turned relatively to each other, the socketed end being split longitudinally, means for limiting the outward movement of the members of said split end, and means for locking said sections in adjusted position.

5. An umbrella rod joint comprising rod sections having their meeting ends beveled, one of said meeting ends being provided on its inclined face with a laterally projecting undercut centrally disposed circular head and the other with a correspondingly shaped and arranged socket to receive said head the axes of the head and socket being in alinement at right angles to the beveled surfaces whereby the sections may be turned relatively to each other, the socketed end being split longitudinally, and means on the inclined face of said head carrying end for engaging the split in the socketed end for yieldably holding said sections in adjusted position.

6. An umbrella rod comprising intermediate and end sections having their meeting ends beveled, means for pivotally connecting said meeting ends comprising a laterally projecting undercut circular head extending from one inclined face, the adjacent face having a correspondingly-shaped socket, the socketed end being split longitudinally, a pin extending transversely through said split end and fixed to one member thereof, the other member being movable relative to said pin, said pin being provided on its free end with means for limiting the outward movement of the member through which it extends, and means for locking said sections in adjusted position.

7. An umbrella rod comprising intermediate and end sections having their meeting ends beveled, a pivot at right angles to beveled ends to permit the sections to be swung into offset and alined positions, the inclined faces of said meeting ends being one provided with a lug and the other with notches to receive said lug for locking the sections in adjusted position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EBEN C. SPEIDEN.

Witnesses:
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