

WHAT IS CLAIMED IS:

1. A needle shield assembly for use with a needle assembly comprising:
a shield portion comprising two longitudinal walls extending from a base of the shield portion, the two longitudinal walls being separated by a needle assembly receiving cavity, the
5 needle assembly receiving cavity being defined by the base, the two longitudinal walls and an open end opposite the base, the two longitudinal walls and needle assembly receiving cavity are configured to receive a needle assembly, wherein a proximal portion of the needle assembly receiving cavity is wider than a distal portion of the needle assembly receiving cavity, the proximal portion of the needle assembly receiving cavity receives a hub of the
10 needle assembly and the distal portion of the needle assembly receiving cavity receives a needle cannula of the needle assembly;
a hub connection portion comprising a partially circular receiving ring defining an arc having a length that is greater than a length of an arc of a semicircle of a same radius as the arc, wherein the partially circular receiving ring deflects or elastically deforms outwardly upon
15 advancement of a receiving flange of the needle assembly, the partially circular receiving ring locks the receiving flange of the needle assembly within; and,
a bridge portion, the bridge portion connecting the shield portion and the hub connection portion, the bridge portion comprising a hub connection portion and a bridge portion and a living hinge, the bridge portion joining the hub connection portion and the shield
20 portion.
2. The needle shield assembly of claim 1, wherein the hub connection portion comprises the partially circular receiving ring having a diameter sized to frictionally receive the receiving flange of the hub of the needle assembly when the needle shield assembly is advanced against
25 the receiving flange in an axial direction towards the needle assembly.
3. The needle shield assembly of claim 2, wherein the receiving flange of the hub of the needle assembly and the hub connection portion of the needle shield assembly engage in an interference fit.
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4. The needle shield assembly of claim 1, wherein at least one locking hook is disposed within the proximal portion of the needle assembly receiving cavity.

5. The needle shield assembly of claim 4, wherein the at least one locking hook comprises a protrusion extending from the base.
- 5 6. The needle shield assembly of claim 5, wherein the at least one locking hook is configured to deflect or elastically deform upon engagement with the needle cannula, the at least one locking hook having a pointed end which first engages the needle cannula.
7. The needle shield assembly of claim 1, wherein the bridge portion includes a first
10 portion and a second portion separated by the living hinge, each of the first portion and the second portion comprising a width and the living hinge comprising a thickness, the thickness being sufficient to allow the living hinge to flex and bend.
8. The needle shield assembly of claim 1, wherein the shield portion pivots against the
15 living hinge.
9. The needle shield assembly of claim 8, wherein the shield portion pivots from an open position to a closed position.
- 20 10. The needle shield assembly of claim 9, wherein the shield portion is in the closed position when the needle cannula of the needle assembly is fully disposed within the needle assembly receiving cavity.
11. The needle shield assembly of claim 1, wherein the partially circular receiving ring
25 further includes a recess.
12. The needle shield assembly of claim 11, wherein the recess forms a U-shaped cross section within the partially circular receiving ring of the hub connection portion.
- 30 13. The needle shield assembly of claim 12, wherein the recess defines a first diameter and a second diameter that is less than the first diameter.

14. The needle shield assembly of claim 1, wherein the receiving flange of the needle assembly is received within the partially circular receiving ring of the needle shield assembly, the partially circular receiving ring deflects or elastically deforms from an initial state upon advancement of the receiving flange and snap-fits the receiving flange upon full advancement,
5 wherein the partially circular receiving ring deflects or elastically deforms back into the initial state.
15. The needle shield assembly of claim 1, wherein a snap-fit fitment between the receiving flange and the partially circular receiving ring allows for retention of the receiving flange
10 within the partially circular receiving ring.
16. The needle shield assembly of claim 15, wherein the snap-fit fitment allows for twisting and angular movement of the partially circular receiving ring around the receiving flange.
- 15 17. The needle shield assembly of claim 11, wherein the partially circular receiving ring envelopes more than half of a profile of the receiving flange of the hub of the needle assembly, the receiving flange comprising a circular protrusion extending from an outer surface of the needle assembly.
- 20 18. The needle shield assembly of claim 17, wherein the circular protrusion of the hub of the needle assembly sits within the recess of the partially circular receiving ring.