Various types of latch assemblies incorporating teachings of the present disclosure may be satisfactorily used to releasably engage first component **100** and second component **200** with each other. For some applications such latch assemblies may be operable to vary the overall length of containers **80** and/or **80***a* to accommodate packaging, storing, shipping and/or presenting rotary drill bits with different lengths.

For some applications first component **100** and second component **200** may be formed from high strength plastic materials which may have sufficient strength to support both a rotary drill bit and a fixed cutter drill bit. For other applications first component **100** and second component **200** may be formed from high strength, lightweight metal alloys, composite materials, cermets and/or any other material satisfactory for use in manufacturing a container for packaging, storing, shipping and/or presenting a rotary drill bit.

First component **100** may sometimes be described as providing a "lid" for container **80** or **80***a*. Second component **200** may sometimes be described as providing a "base" for container **80** or **80***a*. For example, container **80** is shown in FIG. **2**A in a generally vertical orientation with first component **100** extending from second component **200**. For some applications base **200** "down" and lid **100** "up" may represent a "normal" shipping arrangement for container **80** with rotary drill bit **40** disposed therein. However, one of the benefits of the present disclosure includes the ability to also ship and/or store a rotary drill bit in a generally vertical orientation such as shown in FIG. **2**B with second component **200** "up" and first component **100** "down."

End **102** of first component **100** and end **202** of second component **200** may be described as having generally square or rectangular configurations. Overall dimensions and configuration of ends **102** and **202** may be substantially identical. End **102** may include exterior surface **104**. End **202** of container **80** may include exterior surface **204**. Container **80***a* may include end **202** with exterior surface **204***a* and adjacent portions of end **202** modified in accordance with teachings of the present disclosure as compared with exterior surface **204** of container **80**.

For some applications container **80** or **80***a* may be used to ship a rotary drill bit with respective exterior surface **204** or **204***a* in a down position and respective exterior surface **104** in an up position. For other applications container **80** or **80***a* may be used to ship a rotary drill bit with respective exterior surface **204** or **204***a* in an up position and respective exterior surface **104** in a down position. See for example FIGS. **2**B and **7**.

For some applications ends **102** and **202** may include generally rounded corners. A pair of handles **106** and **108** may be formed in opposite corners of end **102**. A similar pair of handles **206** and **208** may be formed in opposite corners of end **202**. The overall configuration and dimensions associated with handles **106**, **108**, **206** and **208** may be selected to accommodate manually grasping either end **102** or end **202**. Also, various types of lifting straps (not expressly shown) may be inserted through handles **106**, **108**, **206** and/or **208** for use in lifting and/or moving associated container **80** or **80***a*.

Handles **106** and **108** may extend from exterior surface **104** through end **102**. Handles **206** and **208** may extend from exterior surface **204** through end **202**. As a result, surfaces **104** and **204** have a generally overall, smooth uniform configuration. Handles **106**, **108**, **206** and **208** may be disposed at an angle such as forty-five (45°) degrees or any other appropriate angle extending from respective exterior surfaces **104** and **204** or **204***a* through adjacent portions of first component **100** and second component **200**. See for example FIG. **4**.

For some applications first component **100** may include bit holder **120** extending from end **102** opposite from exterior surface **104**. Second component **200** may include generally elongated, hollow tube **220** extending from end **202** opposite from exterior surface **204** or **204***a*. The length of hollow tube **220** may be substantially greater than the length associated with bit holder **120**. Exterior dimensions of bit holder **120** may be less than corresponding interior dimensions of hollow tube **220**. As a result, bit holder **120** of first component **100** may be slidably disposed within hollow tube **220** opposite from end **202**.

For embodiments such as shown in FIGS. **2**A-**3** and **5**, bit holder **120** may include first sleeve **121** and second sleeve **122** extending from end **102**. Second sleeve **122** may be disposed within and concentrically aligned with first sleeve **121**. For some applications second sleeve **122** may be formed from various metal alloys. For other applications second sleeve **122** may be formed from high strength plastic and/or composite materials satisfactory for forming threads therein. A plurality of API threads **144** may be formed on interior portions of second sleeve **122**. API threads **144** may be selected to be compatible with releasably engaging API threads **44** formed on the exterior of rotary drill bit **40** and/or **240**.

One end of second sleeve **122** may be embedded within end **102** of first component **100** (not expressly shown). As a result of forming second sleeve **122** from an appropriate metal alloy and imbedding one end of second sleeve **122** within end **102**, first component or lid **100** may provide sufficient strength to support rotary drill bit **40** and/or **240** in generally vertical positions such as shown in FIGS. **3** and **5**. First component **100** may be particularly useful for presenting rotary drill bit **40** or **240** for inspection prior to attachment to a drill string. First component **100** may also be used to position rotary drill bit **40** or **240** during installation of nozzles in associated nozzle receptacles or nozzle housings.

Various types of storage mechanisms may be disposed within first component **100** between first sleeve **121** and second sleeve **122**. Such storage mechanisms may be used to hold nozzles, tools and/or other accessories associated with rotary drill bit **40** and/or **240**. For embodiments such as shown in FIGS. **3** and **5**, nozzle holder **160** may have a generally arcuate configuration disposed between first sleeve **121** and second sleeve **122**. Nozzle holder **160** may include a plurality of openings **162** sized to be releasably engaged with an associated nozzle (not expressly shown). Tool holder **170** may also be disposed between first sleeve **121** and second sleeve **122**. Tool holder **170** may be used to releasably engage various wrenches and/or other tools associated with installing each nozzle in respective nozzle receptacle **68** of rotary drill bit **40** or nozzle receptacle **264** of rotary drill bit **240**.

Portions of latch assembly **150** may be disposed on the exterior of first component **100** and second component **200**. For embodiments such as shown in FIGS. **2**A-**5**, latch assembly **150** may include hook **152** extending from operator **154**. Hook **152** may be releasably engaged with a respective pins **156** extending from the exterior of second component **200**. The number of pins **156** and the spacing between adjacent pins **156** may be varied to accommodate varying the length between end **102** of first component **100** and end **202** of second component **200**. For some applications all or portions of a latch assembly (not expressly shown) may be disposed within first component **100** and/or second component **200**. All or portions of such latch mechanisms may not be visible from the exterior of an associated container.

Bit holder **120** and hollow tube **220** have been described as having generally circular cross sections. However, bit holder **120** and hollow tube **220** may have various cross sections