

embodiment, is formed of a hub having substantially the same diameter as said first and third parts, with fins, projections, or other protuberances of any shape radiating outwardly from said hub. Thus, when it is said that the diameter or breadth of the second part exceeds that of the first and third parts, it should be understood that the diameter of breadth referred to is that of the fins or other projections that radiate outwardly from the hub.

In a first embodiment, however, as depicted in FIG. 1, second part **10b** is of cylindrical configuration and therefore has a circular transverse cross-section. As will become clear as this disclosure continues, this first embodiment is not the preferred embodiment and has utility only in connection with bores or pinholes of non-circular transverse cross-section.

In the second embodiment of FIGS. 2A–C, second part **10b** has a non-cylindrical configuration. More particularly, second part **10b** has a transverse cross section that includes four (4) ridges extending radially outwardly from a cylindrical hub or base along the extent of said hub or base, as best depicted in FIG. 2B. The ridges need not extend along the entire extent of the hub or base of second part **10b** of Braille pin **10**.

Significantly, the pinhole or bore that receives the novel Braille pin has three parts. As depicted in FIG. 3, a first section **14** of said bore has a diameter that receives first part **10a** of the Braille pin. Second section **16** of the bore has a diameter greater than the diameter of first part **14** and receives second part **10b** of the Braille pin. Third section **18** of the bore has a diameter less than the diameter of second section **16** and receives third part **10c** of Braille pin **10**.

An overhang is therefore created where bore first section **14** meets bore second section **16**. A step is created where second section **16** meets third section **18**.

If debris **20** enters into first section **14** of the pin-receiving bore, said debris falls straight through said bore as depicted in FIGS. 3–5. The debris cannot change directions and flow radially outwardly towards the sidewalls of section **16** of the bore. As mentioned above, the hub or base of second part **10b** of Braille pin **10** shares a common diameter with parts **10a** and **10c** of said Braille pin. It may be possible for some debris **20** to accumulate atop a ridge, fin, or other projection that extends radially outwardly from said hub or base but most debris will follow the downward path of travel depicted in FIGS. 3–5. Accordingly, no significant amount of debris can get between the radially outermost edges of the fins or projections formed in second part **10b** and the sidewall of second bore section **16**. This minimizes the chances of pin **10** being lodged within the bore for any reason attributable to debris.

The sidewall of bore second section **16** is the bearing surface for the radially outermost ends of the fins or other projections of second part **10b** of Braille pin **10**. Each fin or other projection forms a point when viewed in plan view, thereby forming a line contact against the sidewall of section **16** when pin **10** travels up and down when actuated and de-actuated, respectively. Thus, any debris that may find a way to get between the outermost ends of said fins and the sidewall of section **16** will be cut through by said sharp-edged fins.

If second part **10b** of Braille pin **10** is cylindrical in configuration as in the embodiment of FIG. 1, debris **20** would collect atop said second part **10b**. As long as said debris continues to collect atop said second part **10b**, said debris cannot jam the pin by entering between the radially

outermost ends of the fins or other projections and the sidewall of bore section **16**. Nor can the debris fall through the pin-receiving bore.

However, where second part **10b** of pin **10** has a non-cylindrical cross-section, debris **20** falls through the pin-receiving bore as indicated in FIGS. 3–5 as aforesaid and also made clear by the sectional views of FIGS. 6 and 7.

In a third embodiment, the transverse cross-sectional shape of second part **10b** is square as depicted in FIGS. 8A and 8B. Said second part **10b** is slideably received with a circular in cross-section second section **16** of a pin-receiving bore.

In a variation of the third embodiment, depicted in FIG. 8C, second part **10b** has a cylindrical construction and hence a circular transverse cross-section. It is slidingly received in a bore or pinhole having a second section **16a** that is square in transverse cross-section.

In a fourth embodiment, the transverse cross-sectional shape of second part **10b** is fluted as depicted in FIGS. 9A and 9B. Said second part **10b** is slideably received with a circular in cross-section second section **16** of a pin-receiving bore.

In a variation of the fourth embodiment, depicted in FIG. 9C, second part **10b** has a cylindrical construction and hence a circular transverse cross-section. It is slidingly received in a bore or pinhole having a second section **16a** that is fluted in transverse cross-section.

In a fifth embodiment, the transverse cross-sectional shape of second part **10b** is triangular as depicted in FIGS. 10A and 10B. Said second part **10b** is slideably received with a circular in cross-section second section **16** of a pin-receiving bore.

In a variation of the fifth embodiment, depicted in FIG. 10C, second part **10b** has a cylindrical construction and hence a circular transverse cross-section. It is slidingly received in a bore or pinhole having a second section **16a** that is triangular in transverse cross-section.

In a sixth embodiment, the transverse cross-sectional shape of second part **10b** is pentagonal as depicted in FIGS. 11A and 11B. Said second part **10b** is slideably received with a circular in cross-section second section **16** of a pin-receiving bore.

In a variation of the sixth embodiment, depicted in FIG. 11C, second part **10b** has a cylindrical construction and hence a circular transverse cross-section. It is slidingly received in a bore or pinhole having a second section **16a** that is pentagonal in transverse cross-section.

In a seventh embodiment, the transverse cross-sectional shape of second part **10b** is hexagonal as depicted in FIGS. 12A and 12B. Said second part **10b** is slideably received with a circular in cross-section second section **16** of a pin-receiving bore.

In a variation of the seventh embodiment, depicted in FIG. 12C, second part **10b** has a cylindrical construction and hence a circular transverse cross-section. It is slidingly received in a bore or pinhole having a second section **16a** that is hexagonal in transverse cross-section.

In an eighth embodiment, the transverse cross-sectional shape of second part **10b** is oval as depicted in FIGS. 13A and 13B. Said second part **10b** is slideably received with a circular in cross-section second section **16** of a pin-receiving bore.

In a variation of the eighth embodiment, depicted in FIG. 13C, second part **10b** has a cylindrical construction and hence a circular transverse cross-section. It is slidingly received in a bore or pinhole having a second section **16a** that is oval in transverse cross-section.