Claims

1. A punch pin having a working end surface, wherein either the working end surface comprises a plurality of alternating structures, said alternating structures having a major diameter extending between a first set of opposing structures, and a minimum diameter extending between a second set of opposing structures, wherein the major diameter is at least 42-49% larger than the minimum diameter.

2. A punch pin as recited in claim 1, wherein the major diameter is at least 46-49% larger than the minimum diameter.

3. A punch pin as recited in claim 1, said working end surface comprising a plurality of lobes and a plurality of flutes, wherein each of the flutes and lobes is elliptically curved, wherein center points of the ellipses which define the flutes define a first circle, wherein center points of the ellipses which define the lobes define a second circle, wherein the second circle is larger than the first circle, and wherein said first circle is closer to a center axis of the punch pin than is said second circle.

4. A punch pin as recited in claim 3, wherein the ellipses which define the flutes are less oblong than are the ellipses which define the lobes.

5. A fastener having a socket formed therein, wherein the socket comprises a plurality of alternating structures, said alternating structures having a major diameter extending between a first set of opposing structures, and a minimum diameter extending between a second set of opposing structures, wherein the major diameter is at least 42-49% larger than the minimum diameter.

6. A fastener as recited in claim 5, wherein the major diameter is at least 46-49% larger than the minimum diameter.

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7. A fastener as recited in claim 5, said socket comprising a plurality of lobes and a plurality of flutes, said socket having a major diameter extending between opposing flutes and a minimum diameter extending between opposing lobes.

8. A fastener as recited in claim 5, said socket comprising a plurality of lobes and a plurality of flutes, wherein each of the flutes and lobes is elliptically shaped, wherein center points of the ellipses which define the lobes define a first circle, wherein center points of the ellipses which define the flutes define a second circle, wherein the second circle is larger than the first circle, and wherein said first circle is closer to a center axis of the fastener than is said second circle.

9. A fastener as recited in claim 8, wherein the ellipses which define the lobes are less oblong than are the ellipses which define the flutes.

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