

## CLAIMS

What is claimed is:

1. A method comprising:  
for each given object of a plurality of objects:  
creating a pattern on at least one surface of each given object with the creation of the pattern including:  
    placing an arrangement of hard particles forming an amorphous pattern adjacent to the at least one surface of the given object,  
    applying mechanical pressure on the hard particles to transfer said amorphous pattern onto the at least one surface to form indentations in the at least one surface, with the indentations forming a unique relief pattern on the given object; and  
    managing the plurality of objects based, at least in part, upon the unique relief pattern as a physical fingerprint respectively defining each object of the plurality of objects.
2. The method of claim 1 further comprising:  
providing the arrangement of hard particles as part of a support material, wherein the hard particles are affixed to the support material and at least partly protrude from a major surface of the support material;  
    wherein the placing the arrangement of hard particles includes placing the major surface of the support material adjacent to the at least one surface so that the at least partially protruding hard particles contact the at least one surface of each given object.
3. The method according to claim 2, wherein the support material and hard particles are in the form of sheet of sandpaper.

4. The method according to claim 1, wherein the application of mechanical pressure includes stamping the hard particles on the at least one surface of the given object of the plurality of objects.

5. The method according to claim 1, wherein:  
each object of the plurality of objects defines a recessed area; and  
the at least one surface of each given object of the plurality of objects is located in this recessed area.

6. The method according to claim 1 further comprising:  
subsequent to the application of mechanical pressure, removing residual hard particles that have been transferred by the application of mechanical pressure to the at least one surface of the given object of the plurality of objects.

7. The method according to claim 1 further comprising:  
applying a light permissive, protective coating on the unique relief pattern of the given object.

8. The method according to claim 1, wherein:  
the hard particles are at least partially colorized;  
the application of mechanical pressure imparts a heterogenous color pattern to the at least one surface of the given object; and  
the heterogeneous color pattern helps to uniquely identify each object of the plurality of objects.

9. The method according to claim 1 further comprising:  
optically reading the physical fingerprint respectively defining each object of the plurality of objects to obtain a digital fingerprint corresponding to the physical fingerprint.
10. The method according to claim 9 further comprising:  
receiving the digital fingerprint corresponding to a first object of the plurality of objects;  
and  
verifying a genuineness of the first object based, at least in part upon a comparison of the digital fingerprint with the physical fingerprint of the first object.
11. A method comprising:  
imprinting a pattern of small indentations on a first physical object by pressing, against a set of surface(s) of the first physical object, a plurality of hard particulate objects, with the imprinted pattern representing a physical fingerprint;  
scanning the pattern to obtain a digital fingerprint corresponding to the physical fingerprint of the first physical object; and  
identifying the first physical object by comparing the physical fingerprint imprinted on the first physical object with the digital fingerprint for the first physical object.
12. The method of claim 11 wherein the plurality of hard particulate objects are grains of sand on a piece of sandpaper.
13. The method of claim 11 wherein the imprinting includes transferring a pattern of different colors to the pattern representing the first physical fingerprint.
14. The method of claim 11 further comprising:  
providing an indication that the first physical object is genuine based, at least in part, upon the identification of the first physical object.
15. The method of claim 11 wherein the scanning of the pattern includes optical scanning of the physical fingerprint.

16. A device for use with a physical object that defines a first surface, the device comprising:
- a major surface with a plurality of hard particles protruding therefrom in a random pattern;
  - a physical object securing sub-assembly; and
  - a mechanical actuation sub-assembly;
- wherein:
- the physical object securing sub-assembly is structured, sized and/or shaped to mechanically secure the first physical object; and
  - the mechanical actuation sub-assembly is structured, sized and/or shaped to cause the major surface with the plurality of hard particles protruding therefrom and the first surface of the physical object to move relative to each other into a position of physical interference so that a physical fingerprint pattern corresponding to the random pattern of hard particles is imprinted on the first surface.
17. The device of claim 16 further comprising a scanning sub-assembly structured and connected to:
- scan the physical fingerprint pattern imprinted on the first surface; and
  - generate a digital fingerprint data set including information indicative of a geometry of the pattern imprinted on the first surface.
18. The device of claim 16 wherein the major surface with a plurality of hard particles protruding therefrom includes a piece of sandpaper.

19. A computer program product (CPP) comprising:  
a set of storage device(s); and  
computer code stored on the set of storage device(s), with the computer code including data and instructions for causing a processor(s) set to perform the following operations:  
receiving a plurality of digital fingerprint data sets, with each given digital fingerprint data set including information indicative of: (i) an identity of a respectively corresponding physical object that defines a first set of physical surface(s), and (ii) a digital fingerprint indicative of a geometry of a pattern of small indentations imprinted on the set of surface(s) of the respectively corresponding physical object,  
receiving a scan data set including information indicative of a scan of a first set of surface(s) of a first physical object, with the scan indicating a geometry of a pattern of small indentations imprinted into the first set of surface(s),  
comparing the scan data set to the plurality of digital fingerprint data sets to determine that the first physical object matches a matching digital fingerprint data set of the plurality of digital fingerprint data sets, and  
communicating a communication that indicates that the first physical object has an identity corresponding to the identity indicated in the matching digital fingerprint data set.
20. The CPP of claim 19 wherein the pattern of small indentations is made by pressing a piece of sandpaper against the first set of surface(s) of the first physical object.
21. An object comprising a surface patterned with a relief pattern that has been formed according to an arrangement of hard particles forming an amorphous pattern and by applying a mechanical pressure on the hard particles to transfer said amorphous pattern onto said surface, whereby the relief pattern defines a physical fingerprint of the object.
22. The object according to claim 21, wherein  
the relief pattern has been formed by stamping the hard particles on said surface.

23. The object according to claim 21, wherein  
said object comprises a recessed area,  
said surface is defined in the recessed area, and  
the relief pattern is formed on the surface within the recessed area.

24. The object according to claim 21, wherein  
the object further comprises a protective coating on the relief pattern, wherein the coating  
is permissive to light.

25. The object according to claim 21, wherein  
the relief pattern is partly colorized, so as to exhibit a heterogeneous color pattern.