What is claimed is:

1. A key blank, comprising

- a grip portion, serving to facilitate:
    - insertion of a substantially flat key blade in a forward direction and withdrawal of the substantially flat key blade in a backward direction along a longitudinal axis, and
    - turning the substantially flat key blade so that it rotates around said longitudinal axis and causes a corresponding rotary motion of a key plug of an associated cylinder lock, and
- said substantially flat key blade, which:
    - extends from said grip portion along said longitudinal axis,
    - includes, as seen longitudinally in the forward direction:
        - a connecting portion adjoining to said grip portion and being provided with a lateral extension,
        - a major longitudinal bitting portion adjoining to said connecting portion and serving to be provided with a row of coded cuts lying within a vertical range of said bitting portion, and
        - a free tip portion adjoining to said major longitudinal bitting portion, and
    - has a cross-sectional profile which is substantially confined within a rectangle having a height being at least 2.5 times greater than a width thereof, said cross-sectional profile including
        - a lower part, having a maximum width being substantially the same as or slightly less than the width of said rectangle, the maximum width of the lower part being 75% to 100% of the width of the rectangle,
        - an upper part being narrower than said lower part, and
        - an interconnecting part extending between said lower and upper parts,

  wherein
    - said connecting portion of the substantially flat key blade is provided with a first selectable abutment surface facing in said forward direction,
    - said first abutment surface is formed as a forward end surface of a longitudinal rib portion,

- said longitudinal rib portion extends in parallel to the longitudinal axis of the substantially flat key blade and is confined longitudinally to said connecting portion of the substantially flat key blade,
- whereby the location of said forward end surface of the longitudinal rib portion, forming the first abutment surface on the key, is selectable along the whole length of said connecting portion,

characterized in that

said longitudinal rib portion extends along a selected fractional part of the connecting portion and is located at a lateral side of said upper part of the substantially flat key blade, where the upper part is narrower than said lower part, and is also located at a vertical level lying within said vertical range of said coded cuts to be formed in said bitting portion of the substantially flat key blade, the longitudinal rib portion being confined also within the contour of or slightly laterally outside said rectangle, with a possible lateral extension exceeding the width of the rectangle by at most 25%, and said longitudinal rib portion is located in the vicinity of an upper edge of said upper part of said connecting portion.

2. The key blank as defined in claim 1, wherein the key blank is provided with two longitudinal rib portions, one on each lateral side of said upper relatively narrow part of the substantially flat key blade, the selected lengths of said two longitudinal rib portions being mutually equal or mutually different.

3. The key blank as defined in claim 1 or 2, wherein

- said interconnecting part includes a substantially vertical portion adjoining to one lateral side portion of said lower part, and
- said upper part is located substantially centrally along a mid-plane of said rectangle, within which the profile is confined, and
- wherein said longitudinal rib portion is located on one or both lateral sides of said upper part of the substantially flat key blade at said connecting portion thereof.

4. The key blank as defined in claim 3, wherein said substantially vertical portion of said interconnecting part forms an inner surface of an undercut groove being formed in a lateral side surface of said substantially flat key blade, the lateral width of said substantially vertical portion of said interconnecting part above an undercut portion of said undercut groove being narrower than said lower part of the substantially flat key blade.

5. The key blank as defined in claim 4, wherein said undercut portion of said undercut groove forms an inside of a security ridge extending upwards from said lower part of the substantially flat key blade in parallel to said interconnecting part.

6. The key blank as defined in claim 4 or 5, wherein said undercut groove is extended vertically downwards into a pocket having opposite side surfaces and a lowermost bottom surface.

7. The key blank as defined in claim 6, wherein said opposite side surfaces of said pocket are substantially parallel to each other.

8. The key blank as defined in any of claims 5 to 7, wherein an upper inside portion of said security ridge is inclined so as to face upwards towards an upper part of said undercut groove, said upper part of the groove being open in a lateral direction.

9. The key blank as defined in claim 1, wherein the cross-sectional profile of the substantially flat key blade comprises:

- an undercut profile groove, located at one side of the substantially flat key blade,
- the lateral side surfaces of said substantially flat key blade located vertically above and below said undercut profile groove lying substantially in a same vertical plane, and
- a shelf surface, located at the opposite side of the substantially flat key blade, and
- wherein said longitudinal rib portion at the connecting portion of the substantially flat key blade is located at a lateral side of said upper part of the substantially flat key blade above said shelf surface.

10. The key blank as defined in claim 1, wherein

- the cross-sectional profile of the key blank comprises two grooves in the two opposite lateral side surfaces of the substantially flat key blade, the two grooves being located in said interconnecting part of the substantially flat key blade, and
- the depths of these two grooves are greater than half the width of said rectangle in which the substantially flat key blade is confined, whereas the upper part of said substantially flat key blade is located substantially centrally along a mid-plane of said rectangle, and wherein said longitudinal rib portion is located on one or both lateral sides of said upper part of the substantially flat key blade at said connecting portion thereof.

11. The key blank as defined in claim 1, wherein the cross-sectional profile of said key blank includes an upper part which is inclined 3˚ to 12˚ relative to a mid-plane of said rectangle within which the substantially flat key blank is confined.

12. A coded key formed from a key blank as defined in any of claims 1 to 11, wherein an upper part of said major longitudinal portion of the substantially flat key blade is provided with said row of coded cuts.

13. The coded key as defined in claim 12, wherein there is also an additional code pattern located in the lower part of said major longitudinal bitting portion of the substantially flat key blade, said additional code pattern being located at a bottom surface of a pocket formed at an undercut profile groove, between said interconnecting part and an upward security ridge, said additional code pattern including coded concavities longitudinally along said major longitudinal bitting portion at a number of different vertical levels, said coded concavities being at least partially concealed by said security ridge when being observed laterally sideways in a horizontal direction being substantially perpendicular to the vertical mid plane of said substantially flat key blade.

14. A cylinder lock and key system including the coded key as defined in claim 12 or 13, in combination with the key plug of said associated cylinder lock, comprising one or more cylinder lock and key combinations, where at least one cylinder lock and key combination forms a matching pair, including:

- a housing having a cylindrical bore, and
- a key plug with a cylindrical body portion, being journalled in said cylindrical bore, and an adjoining radially widened portion having a larger radius than said cylindrical portion,
- with a longitudinal keyway extending from a front end portion to a rear end portion of the key plug,
- said longitudinal keyway having a specific cross-sectional profile corresponding to the cross-sectional profile of the substantially flat key blade of the coded key, so that the coded key fits slidingly in said longitudinal keyway,
- there being a row of central locking pins which are vertically movable in vertical bores in said cylindrical body portion in a central plane of the key plug, and
- said locking pins cooperating with said row of coded cuts of the coded key,

wherein:

- the coded key is insertable in said forward direction into a releasing position in the keyway of the key plug, where it enables releasing of the lock by turning the coded key around said longitudinal axis and causing a corresponding rotary motion of the key plug, and
- the cylinder lock and key in each said matching pair are provided with mutually co-operating first and second abutment surfaces facing in opposite directions along said longitudinal axis,

and wherein:

- the first abutment surface is formed by said forward end surface of said longitudinal rib portion of the substantially flat key blade, said forward end surface being located at a desired position along said connecting portion of the substantially flat key blade,
- the second abutment surface is formed by a matching front end surface located at said front end portion of the key plug, and
- the longitudinal length of said longitudinal rib of said substantially flat key blade and the longitudinal position of said matching front end surface at the key plug are selected so that, in each said matching pair, said forward end surface of said longitudinal rib portion and said matching front end surface at the key plug will make contact with each other when the key reaches said releasing position in the key plug.

15. The cylinder lock and key system as defined in claim 14, wherein said matching front end surface of said key plug of the cylinder lock is formed by:

- a bottom surface in a longitudinal cavity located in said front end portion of the key plug,
- said longitudinal cavity being formed by a laterally sideways extended part of the keyway,
- said longitudinal cavity being configured so as to accommodate said longitudinal rib portion of the substantially flat key blade and having a selected depth measured from an entrance opening in said radially widened portion of the key plug to said bottom portion of said longitudinal cavity,
- said longitudinal cavity of the key plug is located at a vertical level lying within said vertical range of said row of coded cuts in said upper part of the substantially flat key blade, when the latter is inserted into said keyway, and

- in each said matching pair, the selected longitudinal length of said longitudinal rib portion of the coded key is equal to said selected depth of said longitudinal cavity of the key plug.

16. The cylinder lock and key system as defined in claim 14 or 15, wherein the system is a hierarchical system with sub-groups of different ranks.

17. The cylinder lock and key system as defined in claim 16, wherein a sub-group in said system includes:

- in addition to two or more matching pairs with various selected lengths of the longitudinal rib portions of the keys, and corresponding selected longitudinal locations of said matching front end surfaces of said key plugs,
- other possible cylinder lock and key combinations within the sub-group where the longitudinal rib portion of the key is too short, which would result in a misalignment of the coded cuts of the substantially flat key blade and the locking pins of the key plug, so that the key would never reach its releasing position, and
- such a misalignment is avoided by means of a supplemental stop arrangement
    - including a further abutment surface on the key which will replace said longitudinal rib portion being too short, and
    - a further abutment surface on the key plug which will replace the matching front end surface at the key plug,
    - said further abutment surfaces securing a correct stopping of the key in said key plug, for one or more of said other lock and key combinations where the central locking pins of the key plug would be misaligned relative to the coded cuts of the key because of a too short longitudinal rib portion on the key,

wherein said further abutment surfaces are configured to make contact with each other when the key reaches said releasing position in the key plug.

18. The cylinder lock and key system as defined in claim 17, wherein:

- said further abutment surface on the coded key is located at the free tip portion of the substantially flat key blade, and

- said further abutment surface on the key plug is formed on a fixed stop member at the back end portion of the key plug.

19. The cylinder lock and key system as defined in claim 17, wherein:

- said further abutment surface on the coded key is formed by an end surface of a groove located in said lower part and also in said interconnecting part of the substantially flat key blade,
- said groove extending longitudinally backwards from said free tip portion of the substantially flat key blade towards said grip portion and being shorter than said major longitudinal bitting portion of said substantially flat key blade, and
- said further abutment surface on the key plug is formed by at least one obstructing pin being located at a fixed position in said cylindrical portion of the key plug,
- said obstructing pin serving to partially obstruct a passage up to an adjacent central locking pin from below.

20. The cylinder lock and key system as defined in claim 17, wherein:

- said further abutment surface on the coded key is formed on a second longitudinal rib portion located on an opposite lateral side as compared to a first longitudinal rib portion,
- said second longitudinal rib portion being longer than said first longitudinal rib portion and/or being located at a lower vertical level than said first longitudinal rib portion, and
- a corresponding further abutment surface is formed on the key plug in the keyway thereof, and

wherein:

- said further abutment surfaces on said second longitudinal rib portion on the key and in said keyway of the key plug are configured to make contact with each other, instead of said first and second abutment surfaces, when the key reaches its releasing position in the key plug.

21. The cylinder lock and key system as defined in claim 17, wherein:

- said further abutment surface on the coded key is formed on a threshold step-like abutment portion located at said connecting portion of the substantially flat key blade at a higher vertical level than said longitudinal rib portion, and
- said further abutment surface on the key plug is formed at said radially widened portion of the key plug, at a flat front end surface thereof.

22. The cylinder lock and key system as defined in claim 17, wherein the system includes at least one sub-group with matching pairs of keys and key plugs, wherein:

- the selected depth of said longitudinal cavity in said front end portion of the matching key plug is shorter than half of the thickness of said radially widened portion of the key plug, and
- a supplemental stop arrangement is obtained by providing the key with a threshold step-like abutment portion with an end surface serving as a further abutment surface which will make contact with the front end surface of the key plug when the key reaches its releasing position.

23. The cylinder lock and key system as defined in claim 16, 17 or 22, including at least one sub-group having lock and key combinations which are backwards compatible with an existing cylinder lock and key system of the same kind, but having no longitudinal rib portions on the keys or corresponding cavities in the key plugs, said at least one sub-group including keys with longitudinal rib portions and key plugs with corresponding cavities in the radially widened portions thereof, wherein:

- the radially widened front end portion of each key plug has an enlarged thickness, measured longitudinally along said key plug, the enlargement being equal to the selected depth of said cavity, and
- the step-like abutment portion, if any, on each key has a reduced length, the length reduction being equal to said enlargement of said thickness,

whereby the longitudinal rib portions of the keys in said at least one sub-group will enable opening of the cylinder locks of the existing system.