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(54) **HANDHELD CLEANING IMPLEMENT**

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(57) **ABSTRACT**

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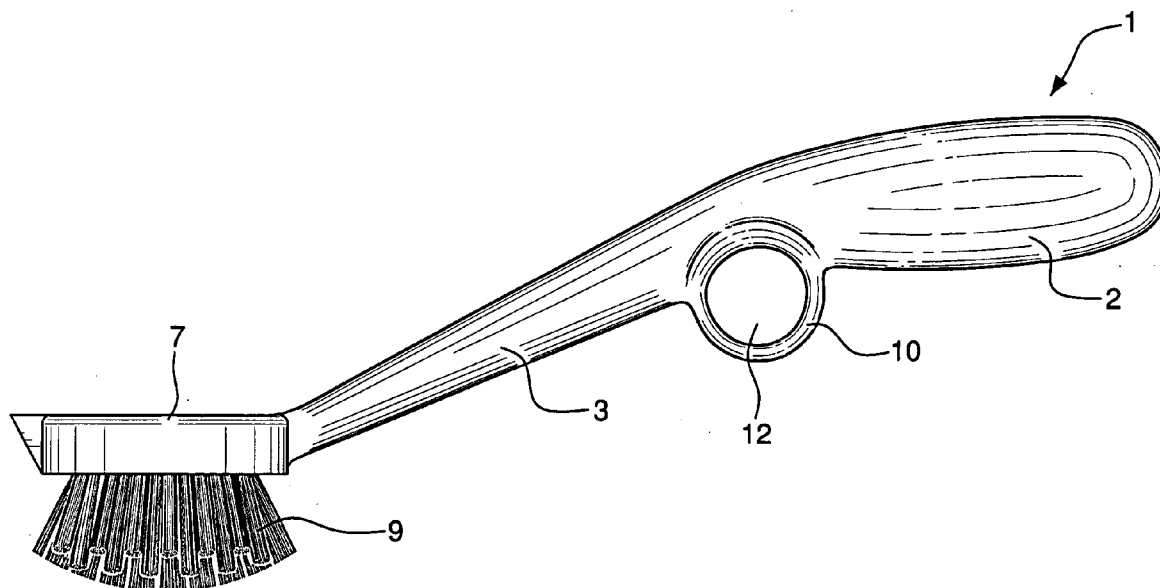
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A handheld cleaning implement of unitary body construction has a handle section which is connected to an angled cleaning head support section to which the cleaning head, having an element with an abrasive surface like a brush, or a sponge, or other common cleaning head, is connected. The handled section and cleaning head section intersect at an obtuse angle to one another, in order to more efficiently and ergonomically direct manual cleaning forces through the implement to the cleaning head. A ring-like bridge support member is positioned at the intersection of the handle and cleaning head sections. This bridge support member permits the insertion of one or two fingers of the user to thus assist in applying concentrated manual force through the implement to the cleaning head.



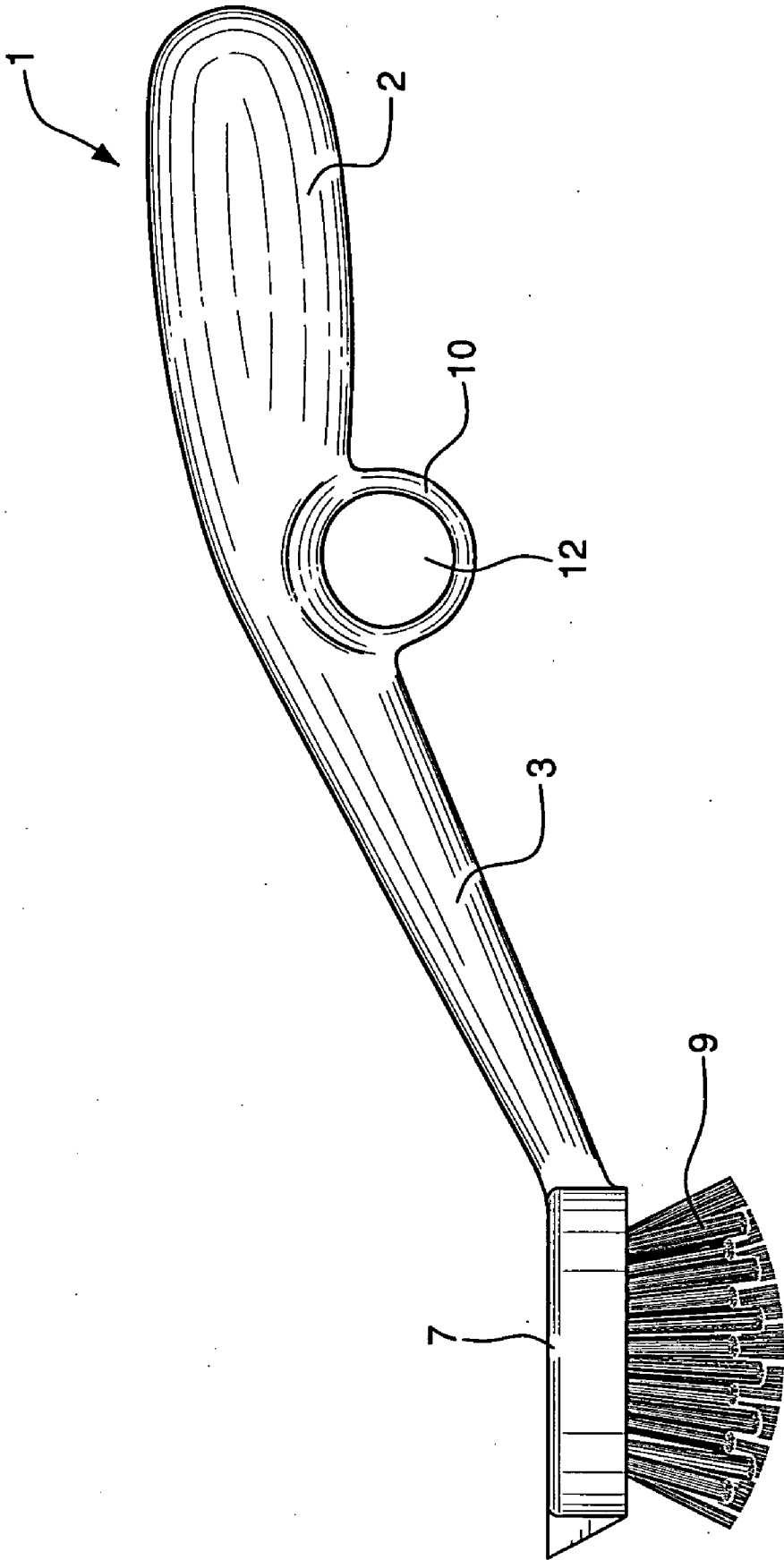


FIG. 1

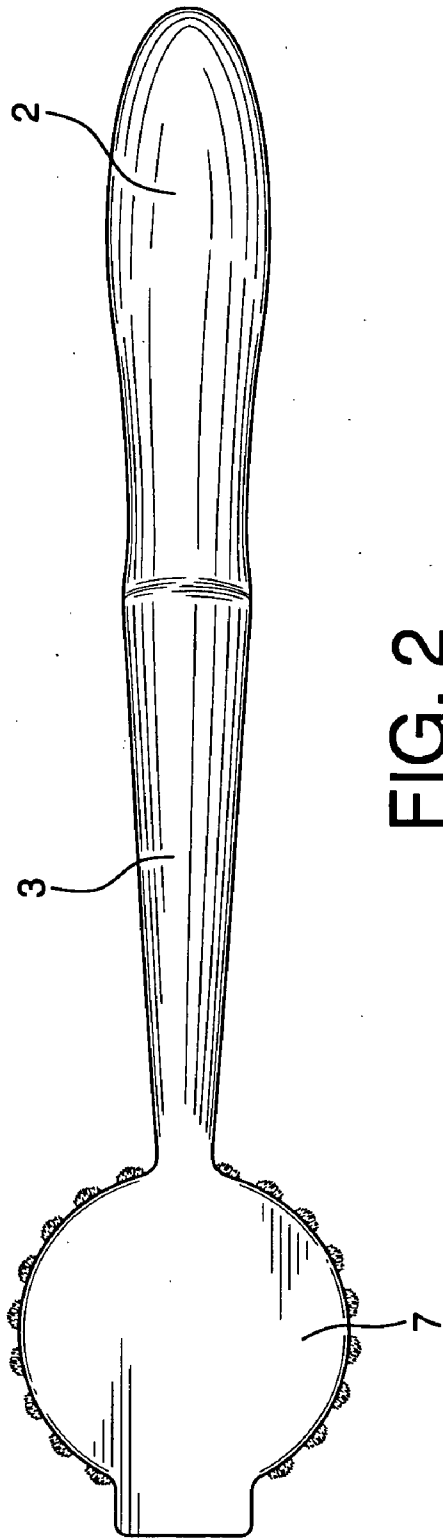


FIG. 2

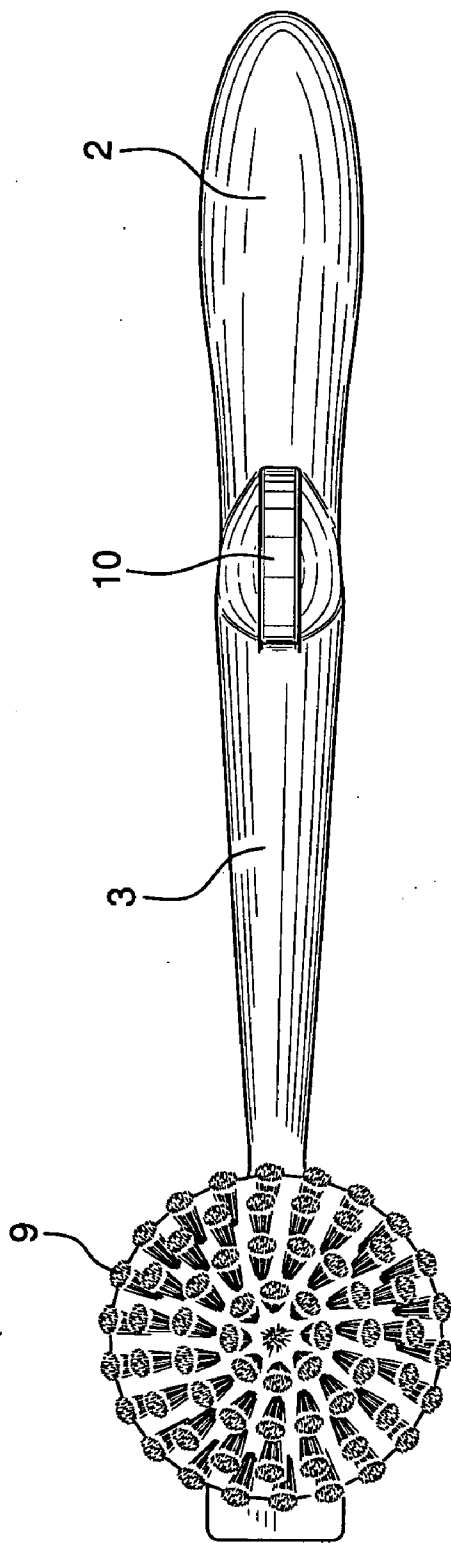


FIG. 3

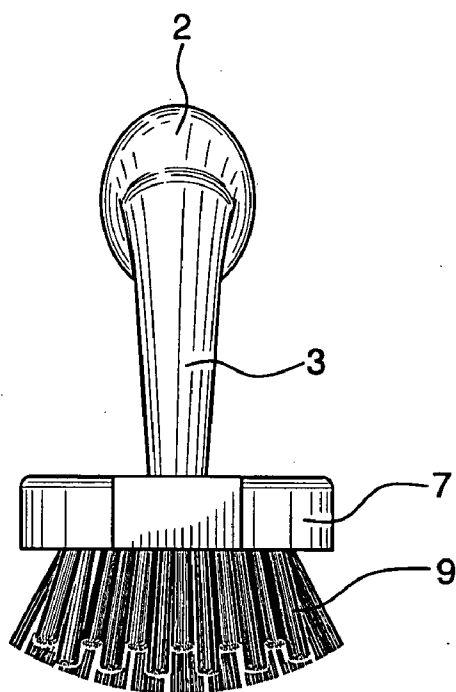


FIG. 4

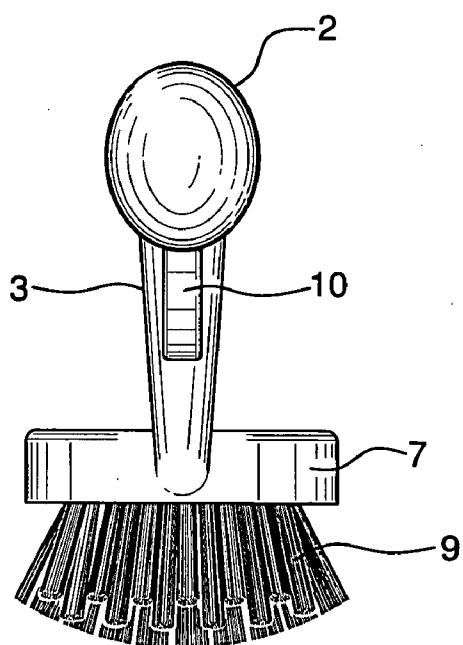


FIG. 5

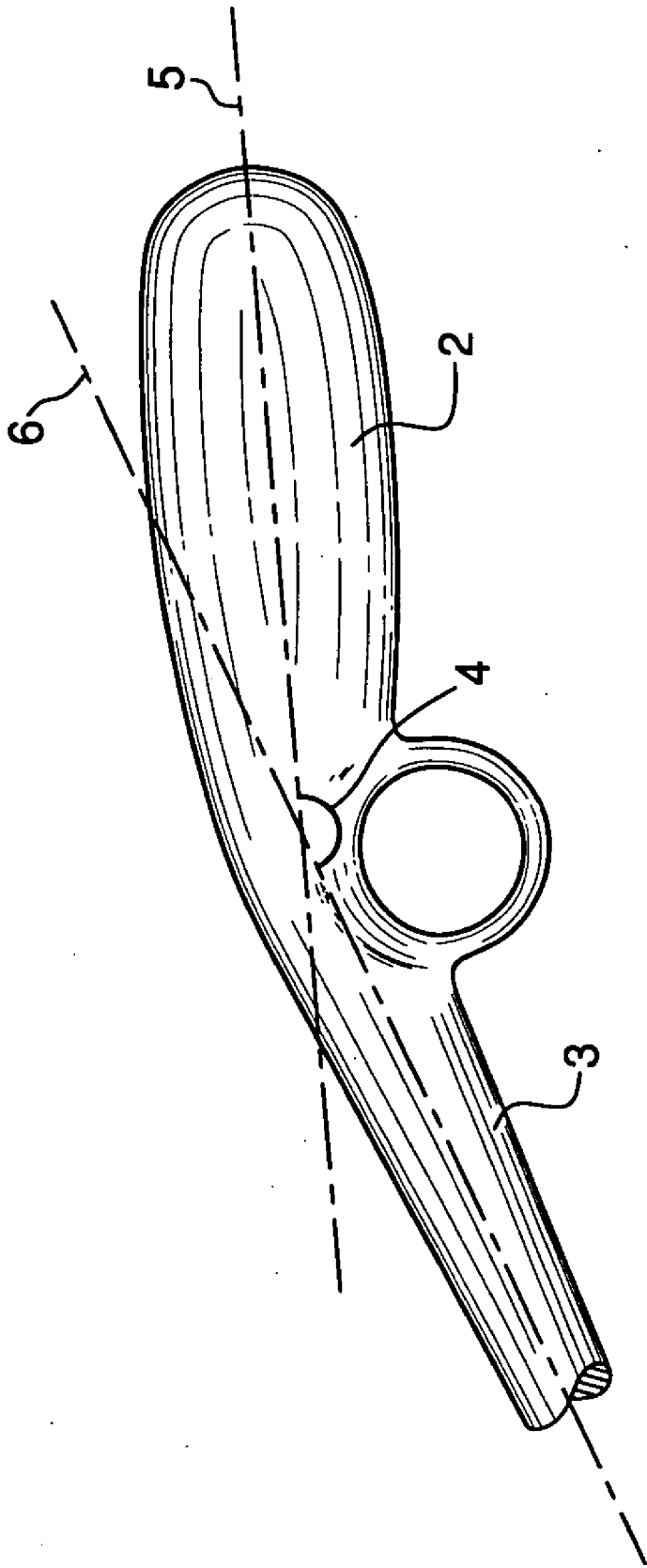


FIG. 6

HANDHELD CLEANING IMPLEMENT

BACKGROUND OF THE INVENTION

[0001] Handheld cleaning implements which employ abrasive and sponge surfaces have long provided an effective tool for scrubbing and cleaning dirty dishes, silverware, pots, appliances, and a variety of other soiled surfaces. However, prior implements require that the user grasp the implement's handle by placing it in the palm of his or her hand with all fingers wrapped around the handle. The manual pressure which is exerted on the implement is thus supplied by the force of the palm of the hand applied in a downward and forward direction. This force is transferred along the substantially straight body of the handle to the cleaning head of the implement. While the use of such implements in this manner has been shown to be somewhat effective, the manual force applied to the soiled surface through the implement by the user could be better and more efficiently employed if the implement were configured to allow a more efficient transfer of the manual forces and to permit the user to hold it in a more comfortable and natural position. Thus, a cleaning implement which makes more efficient use of the manual force supplied by the user and concentrates and directs this force more efficiently through the implement to the soiled surface, while providing a comfortable ergonomic design, would represent a substantial improvement over existing implements.

SUMMARY OF THE INVENTION

[0002] It is thus an object of the present invention to provide a handheld cleaning implement which overcomes the limitations and disadvantages of prior cleaning implements.

[0003] It is an object of the present invention to provide a handheld cleaning implement which employs the manual force applied by the user, through the implement to the cleaning surface, in a more efficient and advantageous manner.

[0004] It is another object of the present invention to provide a handheld cleaning implement which more efficiently concentrates the manual force applied by the user through the implement by use of an angled configuration of the implement.

[0005] It is a further object of the present invention to provide a handheld cleaning implement which is ergonomic in design and is configured to allow the user to hold the implement in a more comfortable and natural position.

[0006] It is still another object of the present invention to provide a handheld cleaning implement which permits the user to grasp the implement not only with the palm of his hand, but also with an individual finger or fingers, to provide concentrated manual forces through the implement to the cleaning surface.

[0007] These and other objects are accomplished by the present invention, a handheld cleaning implement of unitary body construction. The implement has a handle section connected to an angled cleaning head support section to which the cleaning head, having an element with an abrasive surface like a brush, or a sponge, or other common cleaning head, is connected. The handled section and cleaning head section intersect at an obtuse angle to one another, in order

to more efficiently and ergonomically direct manual cleaning forces through the implement to the cleaning head. A ring-like bridge support member is positioned at the intersection of the handle and cleaning head sections. This bridge support member permits the insertion of one or two fingers of the user to thus assist in applying concentrated manual force through the implement to the cleaning head.

[0008] The novel features which are considered as characteristic of the invention are set forth in particular in the appended claims. The invention, itself, both as to its design, construction, and use, together with additional features and advantages thereof, are best understood upon review of the following detailed description with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is an elevation view of the handheld cleaning implement of the present invention.

[0010] FIG. 2 is a top view of the handheld cleaning implement of the present invention.

[0011] FIG. 3 is a bottom view of the handheld cleaning implement of the present invention.

[0012] FIG. 4 is a front view of the handheld cleaning implement of the present invention.

[0013] FIG. 5 is a rear view of the handheld cleaning implement of the present invention.

[0014] FIG. 6 is an elevation view of the handheld cleaning implement of the present invention, showing the angle of intersection between the implement sections.

DETAILED DESCRIPTION OF THE INVENTION

[0015] Handheld cleaning implement 1 of the present invention comprises handle section 2, configured to permit the user to grasp the handle by placing it in the palm of his or her hand. Implement 1 further comprises cleaning head support section 3, extending at an obtuse angle in relation to section 2. FIG. 6 shows this angle 4, formed by the intersection of longitudinal axis 5 of section 2 and longitudinal axis 6 of section 3, to be approximately 160°. However, it is contemplated that the interconnection between sections 2 and 3 can be angled at any comfortable obtuse angle, e.g. between 91° and 179°, depending on the comfort and preference of the user. The configuration of implement 1 should not be considered restrictive by the angle between sections 2 and 3.

[0016] The end of section 3 is connected to cleaning head 7 of implement 1, which can be an element with an abrasive surface, such as brush 9, or other well-known cleaning surface such as a sponge or foam cleaning applicator or equivalent cleaning surface.

[0017] Ring-like bridge support member 10 is connected substantially at the intersection between sections 2 and 3, providing opening 12 through which the fingers of the user can be positioned. Implement 1 is most efficiently configured for insertion into opening 12 of one or possibly two of the user's fingers.

[0018] Thus, a user grasps handle section 2 of implement 1 and optimally places one or possibly two fingers depend-

ing on the size of the user's hand and the comfort of the user, through opening **12** of bridge support member **10**. Application of manual cleaning force from the user can thus be applied, not only by the exertion of pressure on handle section **2**, but also by concentrated pressure exerted by one or two of the user's fingers located through opening **12** of bridge support member **10**. The angled configuration of implement **1** permits the manual force which is applied to be concentrated and directed at an angle downward and forward through angled section **3** to cleaning head **7** and ultimately to the soiled surface to be cleaned. Implement **1** of the present invention thereby provides a cleaning tool which more efficiently and comfortably provides manual cleaning forces to soiled surfaces.

[0019] Implement **1** can be manufactured as a single component, e.g. of unibody molded construction, or by manufacturing separate pieces and attaching these pieces to form the unitary implement described herein.

[0020] Certain novel features and components of this invention are disclosed in detail in order to make the invention clear in at least one form thereof. However, it is to be clearly understood that the invention as disclosed is not necessarily limited to the exact form and details as disclosed, since it is apparent that various modifications and changes may be made without departing from the spirit of the invention.

1. A handheld implement for manually cleaning surfaces, said implement comprising a unitary body having two sections, a first section comprising a handle component and a second section extending at an obtuse angle in relation to said handle component, said second section comprising cleaning head means for cleaning soiled surfaces, said body further comprising bridge support means located substantially at the intersection of the two sections for the insertion of one or more fingers of a user.

2. The implement as in claim 1 wherein the angle is in the range between 91° and 179°.

3. The implement as in claim 1 wherein the angle is approximately 160°.

4. The implement as in claim 1 wherein the cleaning head means comprises an element with an abrasive surface.

5. The implement as in claim 1 wherein the cleaning head means comprises an element with sponge material.

6. The implement as in claim 1 wherein the bridge support means comprises a ring-like bridge component which extends between the two sections.

7. The implement as in claim 5 wherein the bridge component encompasses an opening for the insertion of one or two fingers of a user.

8. The implement as in claim 1 wherein the bridge support means comprises an opening for the insertion of one or two fingers of the user.

9. A handheld implement for manually cleaning surfaces, said implement comprising a unitary body having a first section with a longitudinal axis and a second section with a longitudinal axis, the longitudinal axes of said first and second sections intersecting at an obtuse angle, said second section comprising cleaning head means for cleaning soiled surfaces, said body further comprising bridge support means located substantially at the intersection of the axes of the two sections for the insertion of one or more fingers of a user.

10. The implement as in claim 9 wherein the angle is in the range between 91° and 179°.

11. The implement as in claim 9 wherein the angle is approximately 160°.

12. The implement as in claim 9 wherein the cleaning head means comprises an element with an abrasive surface.

13. The implement as in claim 9 wherein the cleaning head means comprises an element with sponge material.

14. The implement as in claim 9 wherein the bridge support means comprises a ring-like bridge component which extends between the two sections.

15. The implement as in claim 14 wherein the bridge component encompasses an opening for the insertion of one or two fingers of a user.

16. The implement as in claim 9 wherein the bridge support means comprises an opening for the insertion of one or two fingers of the user.

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