Title: DOOR FINGER PINCH PREVENTER

Abstract: A device (20) for prevention of injury to fingers and/or hands by inadvertent insertion into the gap between a hinged door edge (8) and a door jamb (10). The device comprises one or more elongated shield(s) (50, 52), which, in some embodiments, can be held in place by the geometric shape of elements of the device, pressures arising due to the design shapes and materials, and friction, thus simplifying manufacturing, installation and use.

Figure 2
TITLE OF INVENTION

Provisional Patent Application of
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DOOR FINGER PINCH PREVENTER

CROSS-REFERENCE TO RELATED APPLICATIONS
(0001) This application claims the benefit of U.S. provisional patent application 61/291,974, filed January 4, 2010, by the present inventors.

REFERENCE TO SEQUENCE LISTING, A TABLE, OR A COMPUTER PROGRAM LISTING COMPACT DISC
(0002) n/a

BACKGROUND OF THE INVENTION
Field of the Invention
(0003) This invention relates to a device for a door, typically, but not limited to, a door in a home, which has particular application for preventing fingers and/or hands from being pinched and/or injured when the door is closed, a common concern of parents who harbor fear of accidental injury to children.
Description of Related Art


(0005) Commercially available door finger pinch protection devices include vii) door stops, such as Panda Door Finger Pinch Guard (http://www.kidsmartliving.com/pandoorfinpi.html?productid=pandoorfinpi&channelid=NEXTA), WEDjie Classic (http://www.onestepahead.com/catalog/product.jsp?productId=535793&parentCategoryId=85183&categoryId=85183&cmSource=New_85183), Bifold Door Finger-Pinch Guard (http://www.target.com/Bifold-Door-Finger-Pinch-Guard-2-pk/dp/B000C40LJO/ref=se_qi detaillink), KidCo Clear Door
Finger Guards (http://www.albeebaby.com/kidco-door-finger-guards.html), Safety 1st 10436 Finger Pinch Guard
(http://www.diapers.com/Product/ProductDetail.aspx?productid=6493&site=Cl&cm_mmc=cse_-_nextag_-_health_safety_-_SF-019&srccode=cii_9324560&cpncode=19-32820582-2), and American Red Cross Door Finger Guard
(http://www.amazon.com/dp/BOO1NJRA46/ref=asc_df_BOO1NJRA4697?smid=A2ZZGD0WFH5CWA&tag=nextag-baby-mp0_1-delta-20&linkCode=asn&creative=380341&creativeASIN=B001NJRA46); and vii) coverings over door jambs, including American Guardian's Shield Finger Guard
(www.onestepahead.com/catalog/product.jsp?productId=363755), Little Fingers Protector (http://www.screwfix.com/prods/62459/Ironmongery/Door-Furniture/Commercial/Commercial-Door-Furniture/Little-Fingers-Rear-Hinge-Protector?cm_mmc=Shopping.com--Ironmongery--Door%20Furniture--Little%20Fingers%20Rear%20Hinge%20Protector&source=aw), Fingersafe MK 1A (www.fingersafe.com), Fingagard (http://cgi.ebay.co.uk/Fingagard-The-Finger-Protector-l-Door-White-Pack_W0QQitemZ190357061296QQcategoryZ20434QQcmdZViewItemQQ_trksidZp4340.m263QQ_trkparmsZalgo%3DSIC%26its%3DI%26itu%3DUCI%252BIA%252BUA%252BIEW%252BHCS%252BUFI%26otn%3D10%26ps%3D63), New Horizons Door Guard

(0006) The only prior art devices with even remote feasibility, practicality, or cost effectiveness are the door stoppers and door jamb coverings. Users, and warnings from producers, describe door stoppers as causing "damage to your door, frame and/or hinge".

"difficult to install, difficult to maintain, … poor design", having to "take them off the doors so I can shut" them, "can't close the door while [it] is on", "broke within 2 months", "easy to break", "lasted in our house for about an hour".

(0007) Prior art coverings for door jambs do not permit easy, quick installation to a hinged door, such as that found in most homes, without attachment means such as screws,
nails, epoxy, tape, etc while providing virtually 100% prevention of accidental injury to fingers and/or hands of children or others. Few could be installed by a parent, such as most single mothers, lacking carpentry skills. Those configurations which are most easily attached, i.e., via adhesive, are easily removed by children, fall off during use, can damage the painted surface, and/or still are not truly easy to install (see Shield Finger Guard, Fingagard and Finger Gard reviewer comments and installation instructions at web sites listed above.) All but Kitajima require two separate devices per door, one each for the front and rear of the hinge gap. However, Kitajima's device consists of several separate pieces, of different materials, and thus is not simple to manufacture nor inexpensive. Further, it needs an adhesive attachment means, and shares with the other devices, a lack of ease for installation.

(0008) Several of the door jamb covering devices may, under certain circumstances, provide some measure of protection against finger pinching yet lack ease of installation, simplicity, and low cost. There is tradeoff between durability and ease of installation. The easier to install, the easier for children to remove or damage. The more durable, the more difficult to install.

(0009) The door jamb coverings of Kitajima, Nakayama, Henmi, and Hanson, for examples, have all of the above limitations, each being composed of several parts and materials including rigid members attached to bendable material, all of which must be attached to the door and door frame via adhesives, screws, or similar cumbersome means. Suzuki needs similar attachment means, only offers protection on one side of a door, and actually leaves an opening whereby a finger could be inserted and injured. None of the prior art is effective, has no (or simple) attachment means, can comprise a single material, is cheap and easily manufactured, and can be readily installed by virtually anyone.

(0010) Hence, heretofore there has been no suitable, simple and quick-to-install, inexpensive, easy-to-manufacture, after market device, which could be made of a single material, that prevents pinching of fingers and/or hands in doors.
OBJECTS AND ADVANTAGES OF THE INVENTION

(0011) The invention, in its various embodiments, solves a fundamental problem experienced by many families, and others, of being unable to prevent injury to children, as well as adults, from inadvertent catching of fingers and/or hands in gaps formed on the hinged edge of open doors as those gaps close upon shutting of the doors.

(0012) The hinged edge is particularly problematic due to the lever principle. A small amount of force near the other edge (typically, the handle edge) of the door results in a very large force on any object inserted into the gap on the hinged edge. Hence, even a small child playing with a playmate near a door can inadvertently apply enough force to severely pinch, break, sever, or cripple one or more fingers of the playmate. Parents and others consider this a serious, and continual, problem. The invention solves this problem in a superior and wholly satisfactory manner.

(0013) Accordingly, several objects and advantages of the present invention are to provide a means for prevention of injury to fingers and/or hands when doors are closed that

1) is easy to install,
2) is quick to install,
3) can hold itself in place without need for cumbersome attachment means such as adhesive, screws, nails, bolts, clips, or tape,
4) is effective on both sides of a door,
5) is simple in construction,
6) is easily manufactured,
7) is inexpensive, both to manufacture and to purchase,
8) can be made of a single material,
9) is not easily removed by children,
10) does not fall off during use,
11) does not leave glue or other adhesive on the door or door frame when removed,
and

12) is durable.

(0014) No prior art device provides these benefits and advantages. Further objects and advantages of the invention will become apparent from a consideration of the ensuing description of it.

**BRIEF SUMMARY OF THE INVENTION**

(0015) The present invention solves significant problems associated with prior art. It does this by providing a covering sleeve along the hinged edge (usually, but not necessarily, vertical) of a door on one or, preferably, both sides. The covering sleeve protects fingers or hands from being inserted into the gap between the open door vertical edge and the vertical edge of the door frame into which the door fits snugly when closed. The preferred embodiment comprises covering sleeves for both sides of the door, and these can be incorporated into a single piece, which can, but need not necessarily, be made of a single material. Such a dual sleeve device could be composed of rubber, or rubber-like material, and simply be inserted into the door hinged edge gap when the door is open. A protective sleeve would protrude out either side and cover the gap. When the door is closed, the flexible sleeves would simply bend and to permit door closing.

(0016) The device could be held in place vertically by gravity and by resting on a hinge, or portion of a hinge, and/or by frictional force from contact with the door edge and jamb. It could be held in place horizontally (and also aid vertically) by friction via internal compressive and bending stresses exerting normal forces along the door edge and door frame edge. Alternatively simple tacks could be used.

**BRIEF DESCRIPTION OF THE DRAWINGS**

(0017) Figure 1 shows a common household door, wall, and associated elements referred to herein.

(0018) Figure 2 depicts the preferred embodiment of the invention from the front side.

(0019) Figure 3 shows a cross section of one embodiment.
(0020) Figure 4 illustrates the preferred embodiment from the rear side.

(0021) Figure 5 shows the invention alone and separate from the door and door frame into which it is placed.

(0022) Figure 6 shows a cross section of the preferred embodiment.

(0023) Figure 7 shows another embodiment of the invention.

(0024) Figure 8 illustrates an embodiment of the invention comprised of separate sections.

(0025) Figure 9 depicts a sectional view of an embodiment having a supporting element used with a hinge.

(0026) Figure 10 shows an embodiment of the invention which employs one or more elements causing pressure to be exerted on the door edge and/or jamb.

(0027) Figure 11 illustrates another embodiment of the invention with support means comprising a lip overhanging a hinge.

**DETAILED DESCRIPTION OF THE INVENTION**

(0028) Figure 1 depicts a standard door 2 and associated wall 4 without the present invention. The words "hinged" or "hinge" 6 when used in reference to an edge of a door, means herein the edge 8 where leverage from force on the doorknob 14 can cause excessive force to be transmitted through the edge 8 and felt in the gap between the door. This use of the words "hinged" or "hinge" refer to edge 8, even if another device other than a hinge is used on that edge.

(0029) The word "edge" herein means a door edge such as edge 8 or a door jamb/frame edge such as edge 10. The word "side", on the other hand, as used herein refers to the front and rear sides of the door, i.e., the typically planar areas from which the door handles emerge.

(0030) "Frame" and "door frame", as used herein, refer to the region around the outside of a closed door, which is not part of the door. "Jamb" and "door jamb" refer to the section
of the door frame to which hinges are typically attached, and which is typically vertical. Edge 10 is a door jamb, which is part of a door frame.

(0031) Figure 2 shows the finger pinch preventer invention 20 inserted between a door 2 and door frame, and functionally operational. The invention 20 comprises an elongated flexible device that, in one embodiment, protrudes through both sides of the gap between door edge 8 and jamb edge 10, when the door 2 is open, and forms protective barriers or shields, 50 and 52, as shown in Figure 3, on both sides of the door. These protective barriers prevent insertion of fingers and/or small hands into said gap. In Figure 3, which shows a cross section of the invention in one embodiment, the invention comprises a single unit of a single kind of material with shields 50 and 52 and connecting sections 54 and 56. In this embodiment, the invention has the same uniform, or essentially uniform, wall thickness in all four sections 50, 52, 54, and 56.

(0032) Transverse motion of the invention 20 in the plane of Figure 3 is prevented by the protruded nature of shields 50 and 52, the edge 8 of door 2, and the jamb 10 (wall edge) of the wall 4. By extending shields 50 and 52 outside of the planes of edges 8 and 10, yet holding the transition point between said shields and connecting sections 54 and 56 close to the corners of door 2 and jamb 10, a natural geometric restriction to motion is formed. In addition, the invention 20 can be constructed to exert pressure on edges 8 and 10, and also to have reasonable coefficient of friction, so as to effect a frictional tangential force in the plane of edges 8 and 10, which restricts motion tangential to said edges. This pressure can be the natural result of using flexible material for the invention 20, which must be compacted in order to insert it into the hinged edge gap between door edge 8 and jamb edge 10. The internal compressive stress thus set up in the invention would cause it to press outward onto edges 8 and 10.

(0033) Thus, transverse motion in the plane of Figure 3 can be satisfactorily restricted without use of attachment means such as adhesive, screws, nails, tacks, tape or the like, though absence of such attachment means is not necessary for the invention, and such means may be used with the present invention, if desired.
Motion of the invention in the direction normal to the plane of Figure 3 (typically, the vertical direction in space) is also restricted via the afore noted frictional force.

Figure 4 shows the invention from the hinge 6 pin side, and Figure 5 shows it unattached to, and separate from, a door. Figures 4 and 5 illustrate the hinge pin side protective shield(s) 50 and openings 38, which allow the invention to be inserted into the gap between the door and the jamb by permitting space for hinges 6. Protective shield(s) 50 may, as shown, (or may not) to some degree wrap around (or come in contact with) part of the hinge 6, such as the hinge pin(s). This overhang can help to prevent the insertion of fingers and/or small hands into the gap near the hinges.

The overhang also serves to hold the invention 20 in place in several ways. By hugging, or being in contact with, the hinge 6 and/or sections thereof, such as the pin and/or pin region, it restricts motion in all three dimensions, both by the natural geometry and by the friction force generated on the inner surface of protective shield 50 by the hinge 6.

Motion in the vertical direction (specifically the direction aligned with the gravitational acceleration vector) is further restricted by gravity and the support edge(s) 36. The support edge(s) 36 rest(s) on the top part of the hinge 6 and thus motion downward is prevented. Motion upward is restricted by gravity. In some embodiments, the lower edge 37 can be constructed to fit snugly on the hinge 6, and thus constrict motion upward as well.

Said lower edge 37 is herein referred to as the "upward restrictive edge". Any support edge serving the function of support edge 36 may also be referred to as a "downward restrictive edge".

The invention is thus seen to be easily installed simply by inserting it into the door/jamb gap when the door is open. It can also be easily manufactured by liquid molding.

Figure 6 shows the preferred embodiment cross section in which the protective shields 50 and 52 are thicker than the thinner connecting sections 64 and 66. This permits the door to be shut more readily, as thinner connecting sections 64 and 66 mean less compressive pressure would be built up in the gap between the door edge 8 and the jamb.
edge 10 as the door closes. The thicker protective shields 50 and 52 provide greater protective resistance to fingers, as well as stronger contact and friction forces arises from greater compressive force in the protective shields 50 and 52.

(0040) Figure 7 illustrates an embodiment of the invention for protection on a single side of a door. In it, restrictive panel elements 70 are used in lieu of one of the protective shields 50 and 52 on one side of the door. The restrictive panel elements 70 may be rectangular, but need not be so. They may clip into place, but need not be so. They may, but need not, be held in place with means for fastening such as, but not limited to, tacks, nails, screws, adhesives such as glue/epoxy, and/or tape. Figure 7 shows thin connecting sections 64 and 66, but here, as everywhere herein, such thin connecting sections 64 and 66 can be interchanged with connecting sections of normal thickness such as 54 and 56 of Figure 3. All embodiments, regardless of which type of connecting section(s) are discussed and/or shown in figures, may use either type.

(0041) In a related embodiment, restrictive panel elements 70 are excluded. That is, the embodiment has a cross section such as that of Figure 7, but without elements 70. That embodiment comprises a protective shield 50 (or 52) and sections such as 64 and 66, which are deemed herein "edge contacting sections".

(0042) Figure 8 shows an embodiment of the invention wherein the invention is comprised of separate sections 80, 82, 84, and/or 86. This can make the invention easier to install and/or use. Any one, or more, of the sections may be used, any one of which is comprised by the invention.

(0043) Figure 9 shows a sectional view in which the invention is further supported by a support element 90 such as, but not limited to, a string, wire, plastic strip, clip, rubber band, or other rubber element attached, or otherwise connected to, a hinge 6. The hinge thereby helps to support the invention and hold it in place via a supporting element between the invention and the hinge. This can be done in one way, as shown in Figure 9, in which a stringlike element 90 is attached to the invention and loops up and around a hinge 6. The element 90 may, but does not have to, be elastic in nature. Other ways of supporting the
invention structure 20 are comprised by the invention as well. These may include clips holding the invention to the hinge, clips attached to stringlike elements or the like. Of course, the invention 90 may rest directly on the hinge without additional elements such as support element 90.

(0044) In many embodiments, an important factor in the functioning of the invention is the pressure exerted outwardly in the directions of door edge 8 and wall edge 10 (door jamb), which results from the stresses in the protective shield 50 and/or protective shield 52. Thus, in these embodiments, protective shield 50 and/or protective shield 52 are designed to produce such stress and outward pressure when the invention is inserted into place between the door edge 8 and wall edge 10. This internal stress in protective shield 50 and/or protective shield 52 can be effected by an arclike (or rounded or quasi-Omega) shapes, such that the invention is squeezed to some degree when inserted between the door edge 8 and wall edge 10. Any shape effecting internal stress in a manner which produces force that is exerted from the invention to door edge 8 and/or wall edge 10 is comprised by the invention.

(0045) The invention could also comprise a springlike hinge 100 as part of protective shield 50 and/or protective shield 52, as shown in Figure 10, which produces the afore described force from the invention to door edge 8 and/or wall edge 10. It is also comprised by any means that produces the same, or similar, effect as springlike hinge 100.

(0046) The outward force on door edge 8 and wall edge 10 serves the purpose of holding, or helping to hold, the invention in place, typically via frictional forces between the invention and door edge 8 and wall edge 10. The invention comprises any means to effect a compressive force between the invention and the door edge 8 and wall edge (door jamb) 10, and thus produce a frictional force holding, or helping to hold, the invention in place.

(0047) Figure 11 depicts another embodiment of the invention comprised of one or more sections such as, or similar to, elements 110 and/or 112. Such elements have some similarity to those of Figure 8, in that protective shield(s) 50 may overhang the pin side of hinge(s) 6. However, the overhang of such elements 50 in Figure 11 also has an
overhanging lip or "thumb", 120, which may, but does not have to, be an integral part of protective shield 50, and which may overhang the top part of the pin in hinge 6. This overhanging lip 120 may be used to support the protective shield 50 and/or an entire section such as 110 and/or 112. This would provide support in the vertical direction against the force of gravity. It could also provide support against motion of the invention in directions normal to that of the gravity vector.

(0048) In variations of this embodiment, the invention could be inserted in the lower part of the door gap in a hooking motion such that an element similar to 50 would curl around the pin side of the hinge. Then the next section 50 could be simply inserted above it in the same hooking motion until the top of the door is reached. In certain variations of this embodiment, sleeves cover the entire length of the hinge.

(0049) Inclusion of overhanging lip 120 does not have to be limited to sections such as 110 and/or 112, but can also be an addition to embodiments such as that shown in other figures and/or described elsewhere herein. For example, the invention could comprise a single section, as in Figure 5, but the protective shield(s) 50 would have overhanging lip(s) such as 110 and/or 112.

(0050) Although certain of the embodiments described above show the invention as composed of a single material, that is not necessary for the functioning of the invention. For example, protective shields 50 and 52 could be made of a flexible, rubber-like material, whereas connecting sections 54 and 56 could be of a rigid, or more rigid, material. The two different materials could be attached to one another via any suitable means. The protective shields 50 and 52, while flexible in certain embodiments, are nonetheless no so flexible as to permit child's fingers to easily fold them inward such that the fingers could be damaged.

(0051) Although the protective shield 50 is shown in Figures 4, 5 and elsewhere as having a lip overlapping part of the pin side of the hinge 6, such overlapping is not necessary for the functioning of the invention.

(0052) Further, although the invention can be used without means to attach it to a door and/or jamb (other than the natural geometric, frictional, compressive, and gravitational
means delineated above), it can also employ one or more of tacks, adhesives, screws, nails, tape or the like. For example, simple tacks may be used through one, or both, of the connecting sections 54 and 56 (or edge contacting sections) to hold the invention firmly to the door edge 8 and/or the jamb edge 10. In lieu of tacks, adhesive and/or tape can be used between the same elements, as well as screws, nails, and/or other fasteners.

(0053) The words/phrases sleeve, covering sleeve, and protective shield as used herein, all mean same thing.

(0054) "Vertical edge" is a descriptive term because the edge of most doors the device is intended for is vertical, however, the phrase, as used herein, unless specifically delineated as otherwise, can also refer to any edge of any door for which the invention described herein can be used.

(0055) The material of which the invention is made is preferably rubber-like, i.e., flexible, in order to accommodate the opening and closing of the door while maintaining protection for fingers/hands. However, any suitable material for any part, element, or section of the invention is comprised by the invention.

(0056) The shape of the protective shields 50 and 52 is such as to cover, and/or overlap, the corners between the door edge 8 and the door sides, as well as the jamb edge 10 and the wall sides, in such a manner as to prevent fingers from being inserted past those corners into the door/jamb gap. That is, it typically hugs the door edge corner, and the jamb edge cover. The shapes of the protective shields 50 and 52 shown in Figures 3, 4, 5, 6 and 7 are delineated herein as "arclike", "rounded" or "quasi Omega shaped". However, the invention is not restricted to that particular shape for the protective shields 50 and 52. Neither is the invention restricted to having either of the protective shields 50 and 52 as composed of a single piece, or type, of material. In several embodiments, one or both of the protective shields 50 and 52 are composed to provide a compressive force against the door edge 8 and/or the jamb edge 10, but that is not a necessary feature of the invention. In those embodiments, the shape of the protective shields 50 and 52 need only be such that said compressive force is provided by said shape. This is a key aspect of certain embodiments of
the invention, i.e., the force exerted on the door edge and/or the jamb edge that, along with
the concomitant friction force, holds, or helps to hold, the invention in place. Any shape,
orientation, and/or construction of protective shields 50 and/or 52 that provides such force is
comprised by the invention.

(0057) This invention is shown here in several embodiments, but those skilled in the art
will envision many other possibilities that are within its scope. For example, any size,
shape, dimensions, or material may be used for any of the elements shown herein. The
connecting sections 54 and 56, for example, do not have to be rectangular as shown, but
may be any suitable shape, and they may cover, or fail to cover, any specific area of
connecting sections 54 and/or 56. Any length, height, width, or thickness of any part of the
invention is comprised by the invention.

(0058) The invention can thus be seen to solve a significant problem commonly
encountered by families and individuals, and described the Background of the Invention
section above, in a simple, novel, and creative manner.

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(0059) While the above description contains many specificities, the reader should not
construe these as limitations on the scope of the invention, but merely as exemplifications of
preferred embodiments thereof. Those skilled in the art will envision many other
possibilities that are within its scope.

(0060) Accordingly, the scope of the invention should be determined not by the
embodiments described, but by the appended claims and their legal equivalents.
CLAIMS

We claim:

1. A device for preventing fingers from being inserted into a gap between a door edge and a door jamb edge comprising:
   a) a protective shield positioned to cover at least part of said gap,
   b) connecting sections which connect to said protective shield and which are positioned adjacent the door edge and the door jamb edge, and
   c) a pressure means for holding the device in place,

   whereby parents and others can easily install the device, and protect children or adults from injury to their fingers.

2. The device of claim 1 wherein
   a) said protective shield is constructed to provide a force on at least one of the door edge, the door jamb edge, a door side, and a door frame.
   b) the force comprises, at least in part, the pressure means for holding the device in place.

3. The device of claim 2 wherein said protective shield is constructed to transmit the force through at least one of the connecting sections to at least one of the door edge, the door jamb edge, the door side, and the door frame.

4. The device of claim 3 wherein
   a) stress internal to said protective shield comprises, at least in part, a source of the force,
   b) the cross section of said protective shield protrudes, in part, beyond the door edge and the door jamb edge,
   c) said protective shield contacts at least one of the corner of said
door edge, the corner of said door jamb edge, the door side, and the door frame, and thereby restricts motion of said protective shield and helps to hold said protective shield in place.

5. The device of claim 4 wherein said protective shield is comprised, at least in part, of rubber, flexible plastic, or any other rubber like material.

6. The device of claim 4 wherein said protective shield is comprised, at least in part, of rubber, flexible plastic, or any other rubber like material and the cross section of said protective shield is, at least in part, substantially arclike, rounded, or quasi Omega shaped.

7. The device of claim 4 further comprising a second protective shield, wherein one protective shield is located on the front door side of the gap between the door edge and the door jamb edge, and the other protective shield is located on the back door side of said gap.

8. The device of claim 4 further comprising a second protective shield, wherein one protective shield is located on the front door side of the gap between the door edge and the door jamb edge, and the other protective shield is located on the back door side of said gap, and wherein at least one of said protective shields is comprised, at least in part, of rubber, flexible plastic, or any other rubber like material.

9. The device of claim 3 wherein the construction of said protective shield comprises, at least in part, a springlike hinge, and wherein said springlike hinge comprises the source of the force.
10. The device of claim 2 wherein
   a) said protective shield is constructed to transmit forces through at least
two connecting sections to at least two of the door edge, the door jamb
   edge, the door side, and the door frame,
   b) stress internal to said protective shield comprises, at least in part, a
      source of the forces,
   c) the cross section of said protective shield protrudes, in part, beyond the
door edge and the door jamb edge,
   d) said protective shield contacts at least two of the corner of said door
      edge, the corner of said door jamb edge, the door side, and the door
      frame, and thereby restricts motion of said protective shield and helps
to hold said protective shield in place.

11. The device of claim 10 wherein said protective shield is made of different
    material from said connecting sections.

12. The device of claim 10 wherein said protective shield and said connecting
    sections are made of the same material and comprise a single piece.

13. The device of claim 10 wherein a part of said device contacts a door hinge,
    and wherein said door hinge provides additional support force to said device.

14. The device of claim 2 further comprising a second protective shield wherein said
    protective shields and said connecting sections are made of the same material
    and comprise a single piece.
15. The device of claim 2 further comprising a second same side protective shield located on the same door side as the first protective shield, wherein said protective shields are substantially separated from one another and at least one protective shield mounts over at least part of a door hinge.

16. The device of claim 2 wherein part of said protective shield comprises an overhanging lip, and wherein said overhanging lip overhangs a door hinge.

17. The device of claim 2 further comprising an attachment means, wherein said attachment means is attached to both said device and a door hinge, wherein said attachment means provides additional support force to said device, and wherein said attachment means comprises a wire, string, other stringlike element, plastic strip, clip, rubber band, any other rubber element, or any other rubberlike element.

18. A method for preventing fingers from being inserted into a gap between a door edge and a door jamb edge, comprising:

   a) positioning a protective shield to cover at least part of said gap,
   b) connecting connecting sections to said protective shield,
   c) positioning the connecting sections adjacent the door edge and the door jamb edge, and
   d) constructing the protective shield to transmit force through at least one of the connecting sections to at least one of the door edge, the door jamb edge, a door side, and a door frame.

whereby the force helps hold the protective shield in place, and whereby parents and others can easily install the device to protect children or adults from injury to their fingers.
19. The method of claim 18 further comprising positioning a second protective shield to cover the gap on the opposite side of the door from the first protective shield and connecting the second protective shield to at least one connecting section.

20. The method of claim 19 further comprising

   a) stressing, internally, at least one protective shield to provide, at least in part, a source of the force,
   b) composing at least one protective shield, at least in part, of rubber, flexible plastic, or any other rubber like material,
   c) constructing the cross section of at least one protective shield to protrude, in part, beyond the door edge and the door jamb edge, and thereby restricting motion of the protective shield and help hold the protective shield in place,
   d) contacting a door hinge with a part of at least one protective shield, and
   e) using the door hinge for additional support force, at least in part, to the protective shield.