



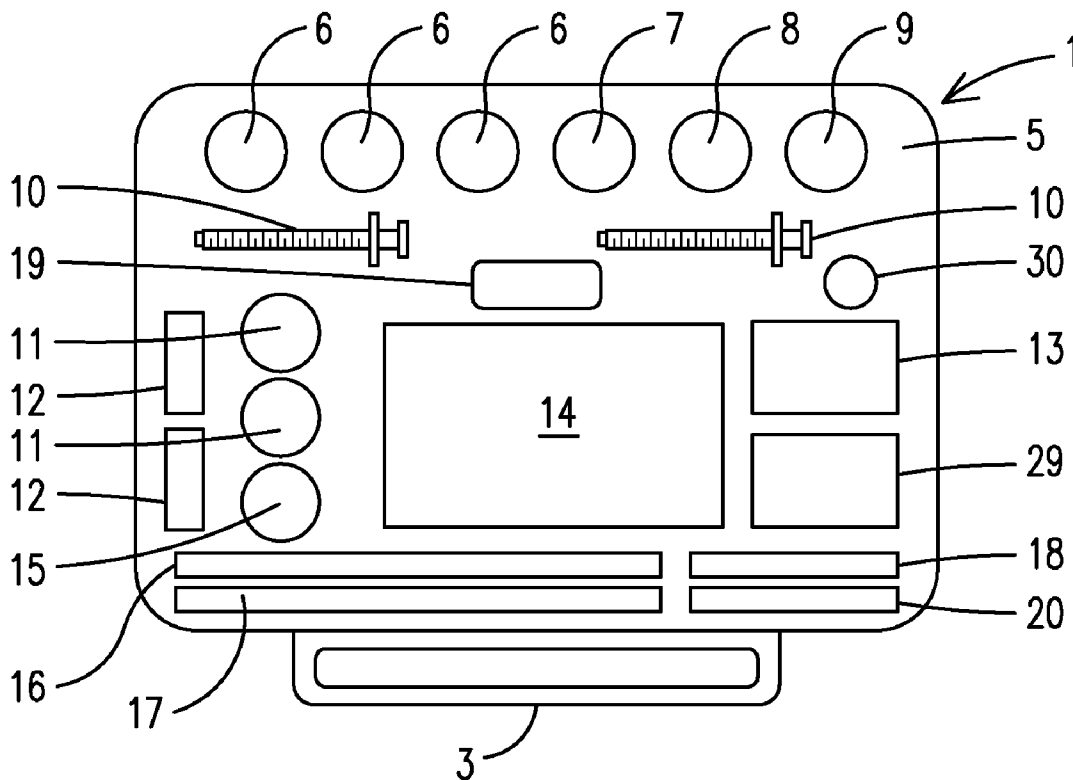
US 20090019803A1

(19) **United States**(12) **Patent Application Publication**  
**Chapman**(10) **Pub. No.: US 2009/0019803 A1**(43) **Pub. Date: Jan. 22, 2009**(54) **FLOOR REPAIR KIT AND METHOD**(52) **U.S. Cl. .... 52/411; 206/321; 52/403.1**(76) **Inventor: Robert A. Chapman, Naples, FL (US)**(57) **ABSTRACT**

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**963 TRAIL TERRACE DRIVE**  
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(21) **Appl. No.: 11/781,093**(22) **Filed: Jul. 20, 2007****Publication Classification**(51) **Int. Cl.**  
**E04B 5/00 (2006.01)**  
**B65D 85/00 (2006.01)**

A floor repair kit (1) for repairing a damaged area (22) on a flooring material (21). To use, a user first adds tint (6) to a filler (9) to create a tint/filler mixture (26). Then, the user adds a hardener (15) to the tint/filler mixture (26) to create a tint/filler/hardener mixture (27). The tint/filler/hardener mixture (27) is then applied to a damaged area (22) on a flooring material (21) and permitted to harden. A protective material (14) is secured over the hardened tint/filler/hardener mixture (27) and over an area of the flooring material (21) surrounding the damaged area (22). The protective material (14) located over the hardened tint/filler/hardener mixture (27) is cut to expose the hardened tint/filler/hardener mixture (27) and the exposed hardened tint/filler/hardener mixture (27) is then sanded. Finally, the user removes the protective material (14) from the flooring material (21) to reveal a repaired floor (28).



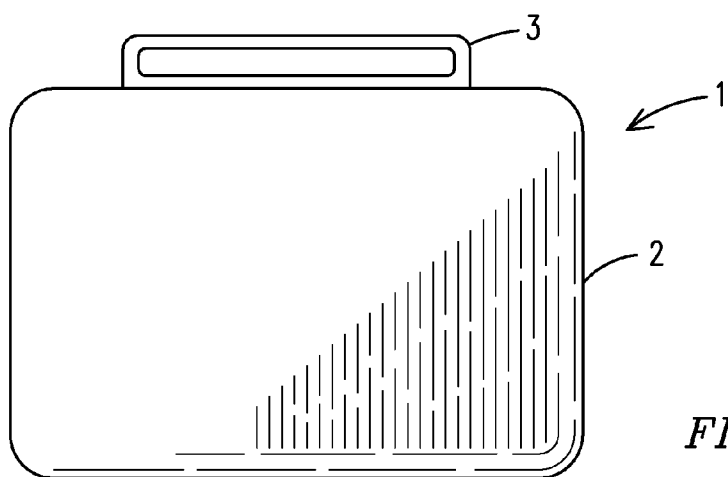


FIG. 1

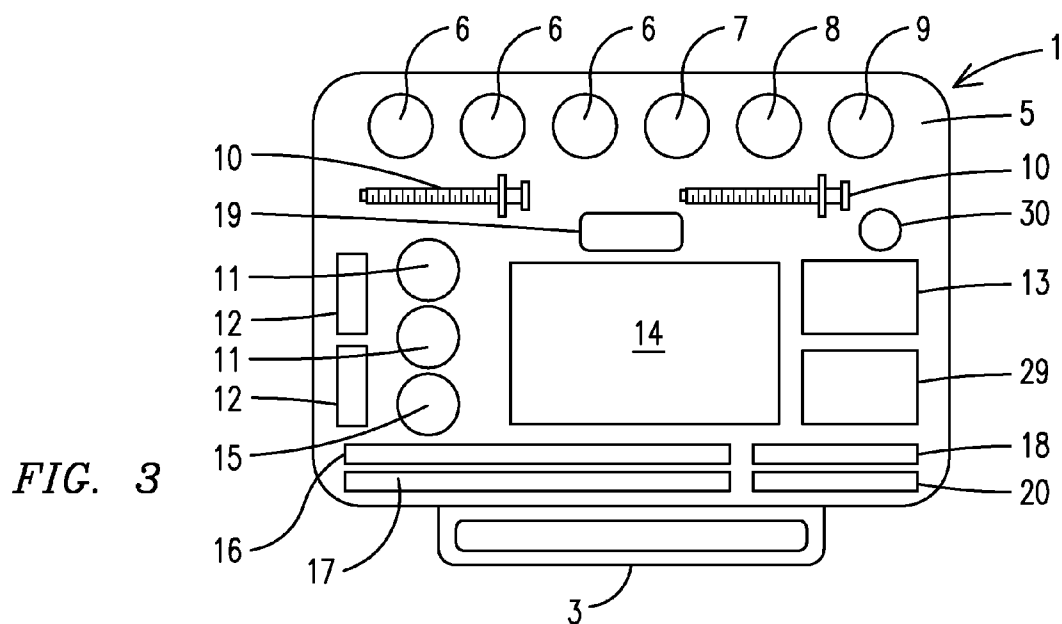


FIG. 3

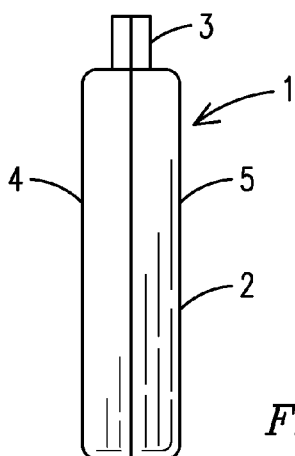


FIG. 2

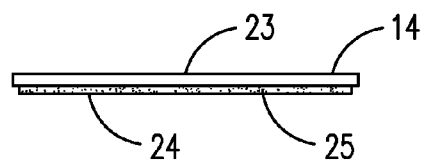


FIG. 4

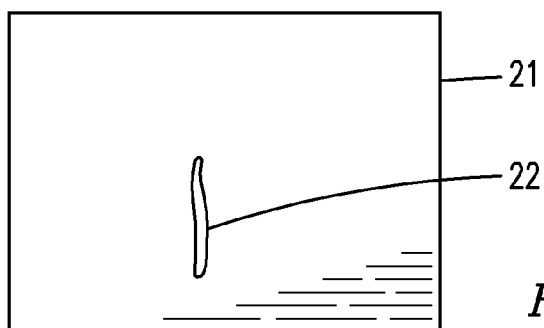


FIG. 5

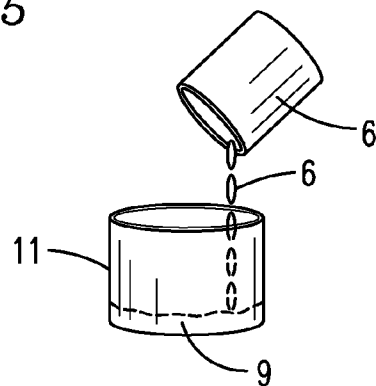


FIG. 6

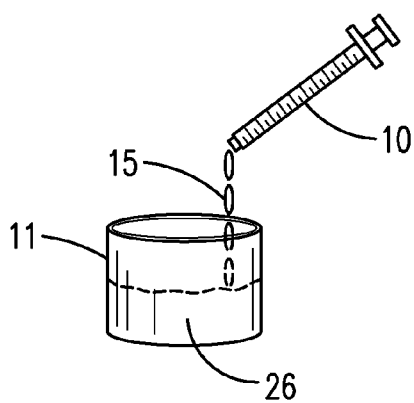


FIG. 7

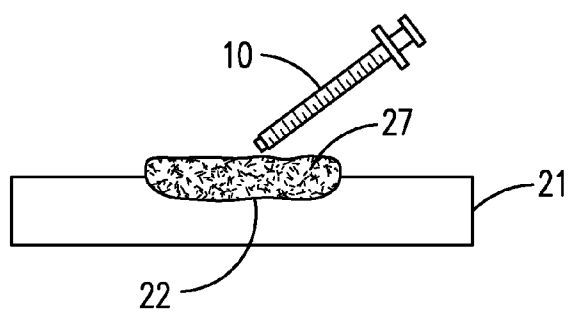


FIG. 8

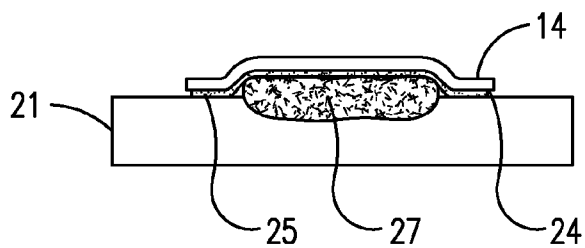


FIG. 9

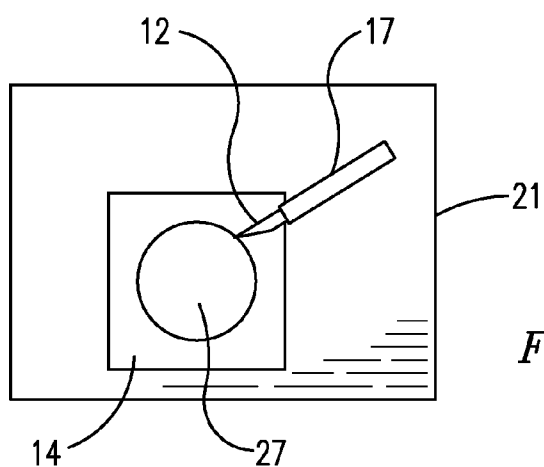


FIG. 10

FIG. 11

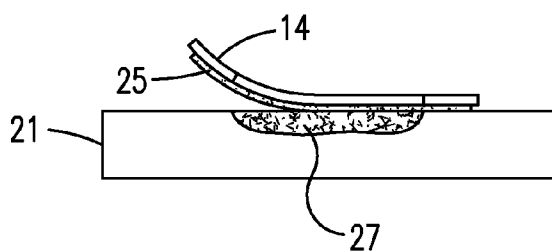
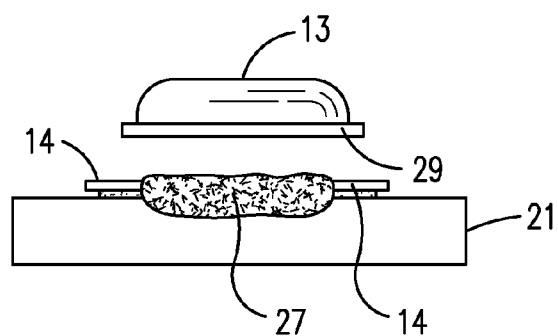


FIG. 12

FIG. 13

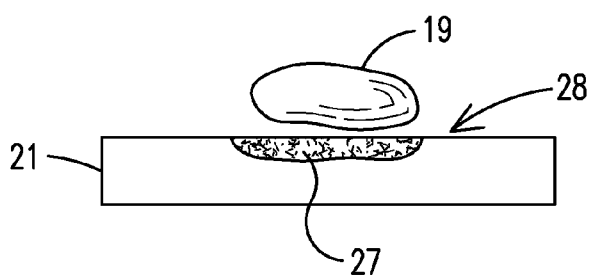
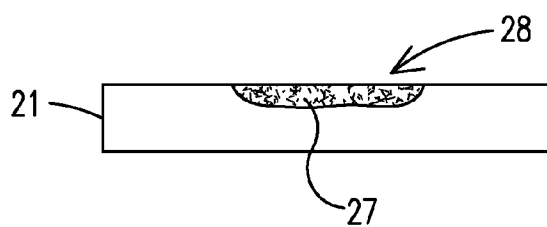


FIG. 14

## FLOOR REPAIR KIT AND METHOD

### BACKGROUND OF THE INVENTION

**[0001]** This invention relates to floor repair, more particularly, a kit and method for repairing floors of various materials, including, but not limited to, marble, granite, ceramic tile, wood and grout.

**[0002]** The flooring in a home or business is of great importance as it affects the overall look and feel of a building. If the flooring is made of an expensive material, such as marble or granite, an overall feeling of luxury and class is oftentimes connoted. If the flooring is made of a lesser expensive material, such as ceramic tile or wood, a down-to-earth, cozy ambience is usually brought to mind. In addition, a cracks or break in a floor may cause a person to trip and fall, especially if wearing heels. However, regardless of the type of flooring material used, if there is damage to the flooring, such as a crack or hole, the ambience and safety of the home or business is compromised.

**[0003]** In order to restore the floor to its original, undamaged state, an entire section of tile or slab of the floor surrounding the damaged section must be removed and replaced. As there is much labor attributed to removing and replacing flooring, the repair process is usually very costly. In addition, the owner of the home or building must pay for an entire section of new flooring, even though the damaged area may be minimal in size, thereby adding to an already expensive process.

**[0004]** Thus, a need exists for a floor repair kit and method that permits a person to quickly and easily repair damage to a floor in a cost-efficient manner.

**[0005]** The relevant prior art includes the following references:

Patent No. (U.S. unless stated otherwise)	Inventor	Issue/Publication Date
2005/0239993	Zanghellini	Oct. 27, 2005
4,292,236	Ibsen et al.	Sep. 29, 1981
2005/0131128	Hughes et al.	Jun. 16, 2005
6,478,561	Braun et al.	Nov. 12, 2002
5,000,890	DiStefano et al.	Mar. 19, 1991
4,360,994	Hodges	Nov. 30, 1982
2007/0029215	Martinez et al.	Feb. 08, 2007
2004/0013796	Metzger	Jan. 22, 2004

### SUMMARY OF THE INVENTION

**[0006]** The primary object of the present invention is to provide a floor repair kit and method that permits a person to quickly and easily repair damage to a floor.

**[0007]** A further object of the present invention is to provide a floor repair kit and method that is cost-efficient.

**[0008]** A further object of the present invention is to provide a floor repair kit and method that permits a person to repair a floor to its original, undamaged state.

**[0009]** An even further object of the present invention is to provide a floor repair kit and method that is easy to use.

**[0010]** Another object of the present invention is to provide a floor repair kit and method that is portable.

**[0011]** The present invention fulfills the above and other objects by providing a floor repair kit for repairing a damaged area on a flooring material. The floor repair kit includes a

predetermined amount of at least one tint, a predetermined amount of at least one filler, at least one hardener and at least one protective material having a top surface and a bottom surface wherein said bottom surface has a predetermined amount of adhesive located thereon.

**[0012]** To use the floor repair kit of the present invention, a user first adds a predetermined amount of tint to the filler to create a tint/filler mixture. Then, the user adds a predetermined amount of the hardener to the tint/filler mixture to create a tint/filler/hardener mixture. The tint/filler/hardener mixture is then applied to a damaged area on a floor and permitted to harden for a predetermined amount of time. The bottom surface of the protective material is then secured over the hardened tint/filler/hardener mixture and over a predetermined area of the floor surrounding the damaged area. The user then cuts a predetermined amount of the protective material located over the hardened tint/filler/hardener mixture so as to expose the hardened tint/filler/hardener mixture and sands the exposed hardened tint/filler/hardener mixture to a predetermined level, which is preferably level with undamaged area of the floor. Finally, the user removes the protective material from the floor to reveal a repaired floor.

**[0013]** The above and other objects, features and advantages of the present invention should become even more readily apparent to those skilled in the art upon a reading of the following detailed description in conjunction with the drawings wherein there is shown and described illustrative embodiments of the invention.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0014]** In the following detailed description, reference will be made to the attached drawings in which:

**[0015]** FIG. 1 is a front view of a floor repair kit of the present invention in a carrying case;

**[0016]** FIG. 2 is a side view of the embodiment of FIG. 1;

**[0017]** FIG. 3 is a top view of the floor repair kit of the present invention in an opened carrying case;

**[0018]** FIG. 4 is a side view of a protective material of the floor repair kit of the present invention;

**[0019]** FIG. 5 is a top view of a flooring material having a damaged area;

**[0020]** FIG. 6 is a perspective plan view of the step of adding a tint of the method of the present invention to a filler of the present invention;

**[0021]** FIG. 7 is a perspective plan view of the step of adding a hardener of the method of the present invention to the tint and filler of the present invention;

**[0022]** FIG. 8 is a cut-away view of the step of applying a tint/filler/hardener mixture of the method of the present invention on a damaged area of a flooring material;

**[0023]** FIG. 9 is a cut-away view of the step of securing a protective material of the method of the present invention over a hardened tint/filler/hardener mixture;

**[0024]** FIG. 10 is a top view of the step of cutting a predetermined portion of the protective material so as to expose the hardened tint/filler/hardener mixture of the method of the present invention;

**[0025]** FIG. 11 is a cut-away view of the step of sanding the hardened tint/filler/hardener mixture of the method of the present invention;

**[0026]** FIG. 12 is a cut-away view of the step of removing the protective material of the method of the present invention;

**[0027]** FIG. 13 is a cut-away view of a repaired floor after utilizing the present invention; and

**[0028]** FIG. 14 is a cut-away view of buffing a repaired floor after utilizing the present invention.

# DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0029] For purposes of describing the preferred embodiment, the terminology used in reference to the numbered components in the drawings is as follows:

- [0030] 1. floor repair kit, generally
- [0031] 2. carrying case
- [0032] 3. handle
- [0033] 4. cover
- [0034] 5. base
- [0035] 6. tint
- [0036] 7. varnish
- [0037] 8. marble dust
- [0038] 9. filler
- [0039] 10. syringe
- [0040] 11. mixing cup
- [0041] 12. knife blades
- [0042] 13. sanding block
- [0043] 14. protective material
- [0044] 15. hardener
- [0045] 16. brush
- [0046] 17. knife
- [0047] 18. mixing stick
- [0048] 19. steel wool
- [0049] 20. dowel rod
- [0050] 21. flooring material
- [0051] 22. damaged area
- [0052] 23. protective material top surface
- [0053] 24. protective material bottom surface
- [0054] 25. adhesive
- [0055] 26. tint/filler mixture
- [0056] 27. tint/filler/hardener mixture
- [0057] 28. repaired floor
- [0058] 29. sandpaper
- [0059] 30. wood dust

[0060] With reference to FIGS. 1 and 2, varying views of a floor repair kit of the present invention in a carrying case are shown. The floor repair kit, generally 1, is preferably located in a carrying case 2 having a handle 3 for easy transportability. The carrying case 2 includes a cover 4 and a base 5 that are preferably hingedly connected to one another so as to permit a user to open the carrying case 2 when he/she desires to use the floor repair kit 1.

[0061] In FIG. 3, a top view of the floor repair kit of the present invention in an opened carrying case is shown. The floor repair kit 1 includes at least one tint 6, at least one filler 9, at least one hardener 15 and at least one protective material 14. The tints 6 may be of any color so as to permit a user to match a tint/filler/hardener mixture 27 (as shown in FIGS. 8-13) with a predetermined color of a flooring material 21 (as shown in FIGS. 5 and 8-13). The filler 9 is preferably resin, but may be any other type of filler material, while the hardener 15 is preferably epoxy, but which may be any other type of hardener material. The protective material 14 may be vinyl, nylon, leather or any other material. Additionally, the protective material 14 may be transparent or opaque, reusable or disposable.

[0062] So as to be an all-encompassing floor repair kit 1, the floor repair kit 1 also preferably includes at least one varnish 7, a predetermined amount of wood dust 30 and at least one syringe 10 for application of the hardener 15 to a tint/filler mixture 26 (as shown in FIG. 7) and for application of the tint/filler/hardener mixture 27 to a damaged area 22 on a flooring material 21 (as shown in FIG. 8). In addition, at least

one mixing cup 11 and at least one mixing stick 18 are also preferably provided to permit mixing of tint 6, filler 9 and hardener 15, as well as for mixing in a predetermined amount of varnish 7 or marble dust 8 if desired. At least one knife 17 and at least one knife blade 12 are also preferably provided so as to permit a user to cut a predetermined area of the protective material 14. At least one brush 16 is preferably provided to permit a user to touch-up the application of the tint/filler/hardener mixture 27 if necessary. At least one sanding block 13 and a plurality of sandpaper 29 having different grades are provided for use in sanding and leveling a hardened tint/filler/hardener mixture 27 as shown in FIG. 11. At least one piece of steel wool 19 is also preferably provided in the floor repair kit 1 to permit a user to buff the hardened tint/filler/hardener mixture 27 to a shine as shown in FIG. 13. Finally, at least one dowel rod 20 may also be provided in the floor repair kit 1 for use as a mixing tool to mix the tint 6, varnish 7, marble dust 8, filler 9, hardener 15 and/or wood dust 30 in a mixing cup 11.

[0063] FIG. 4 shows a side view of a protective material of the floor repair kit of the present invention. The protective material 14 has a protective material top surface 23 and an opposing protective material bottom surface 24. In addition, a predetermined amount of adhesive 25 is preferably located on the protective material bottom surface 24.

[0064] With reference to FIG. 5, a top view of a flooring material having a damaged area is shown. The flooring material 2 may be any type of flooring material 21 including, but not limited to, marble, granite, ceramic, tile, wood, grout, etc. The damaged area 22 on the flooring material 21 may be a crack or hole of any depth, length, shape and size, or any other type of damage to the flooring material 21 wherein the damaged area 22 of the flooring material 21 needs to be repaired by filling in the damaged area 22.

[0065] Next, FIG. 6 shows a perspective plan view of the step of adding a tint of the present invention with a filler of the present invention. A predetermined amount of tint 6, which may be of any color, is added to a predetermined amount of filler 9, preferably in the mixing cup 11 and mixed, preferably by using a mixing stick 18.

[0066] FIG. 7 shows a perspective plan view of the step of adding a hardener of the present invention with the tint and filler of the present invention. A predetermined amount of hardener 15 is added to the tint/filler mixture 26 located in the mixing cup 11, preferably via syringe 10, and mixed, preferably via a mixing stick 18, to create a tint/filler/hardener mixture 27 (as shown in FIGS. 8-13).

[0067] When the tint/filler/hardener mixture 27 is created, it is then then applied to the damaged area 22 on the flooring material 21 as shown in FIG. 8. Application of the tint/filler/hardener mixture 27 is preferably via use of a syringe 10, although other means of applying the tint/filler/hardener mixture 27 may be used. The tint/filler/hardener mixture 27 is permitted to harden for a predetermined amount of time.

[0068] After the desired hardness of the tint/filler/hardener mixture 27 is achieved, the protective material bottom surface 24 is then secured over the hardened tint/filler/hardener mixture 27 and over a predetermined area of the flooring material 21 surrounding the damaged area 22. In the alternative, if the protective material 14 does not include an adhesive 25 located on the protective material bottom surface 24, the protective material 14 may be placed over the hardened tint/filler/hardener mixture 27.

[0069] In FIG. 10, the next step of the method of using the floor repair kit of the present invention is shown. The user cuts

a predetermined amount of the protective material **14** located over the hardened tint/filler/hardener mixture **27** so as to expose the hardened tint/filler/hardener mixture **27**. In this manner, the hardened tint/filler/hardener mixture **27** is exposed while the flooring material **21** surrounding the damaged area **22** is covered by the protective material **14**.

[0070] As shown in FIG. 11, the user then sands the exposed hardened tint/filler/hardener mixture **27** to a predetermined level, which is preferably level with the surrounding undamaged area of the flooring material **21**. Finally, the user removes the protective material **14** from the flooring material **21**, either by lifting the protective material **14** or, if the protective material **14** includes an adhesive **25**, by peeling away the protective material **14** as shown in FIG. 12, to reveal a repaired floor **28** as shown in FIG. 13.

[0071] If desired, a user may then buff the hardened tint/filler/hardener mixture **27** with steel wool **19** so as to clean and remove adhesive from the repaired floor **28** and smooth it as shown in FIG. 14.

[0072] The use of the present invention will allow a person to quickly and easily quickly and easily repair damage to a floor in a cost-efficient manner.

[0073] It is to be understood that while a preferred embodiment of the invention is illustrated, it is not to be limited to the specific form or arrangement of parts herein described and shown. It will be apparent to those skilled in the art that various changes may be made without departing from the scope of the invention and the invention is not to be considered limited to what is shown and described in the specification and drawings.

Having thus described my invention, I claim:

1. A floor repair kit for repairing at least one damaged area on a flooring of a predetermined material, said floor repair kit comprising:

a predetermined amount of at least one tint;  
a predetermined amount of at least one filler;  
at least one hardener; and  
at least one protective material having a top surface and a bottom surface.

2. The floor repair kit of claim 1 wherein:  
said at least one protective material bottom surface has a predetermined amount of adhesive located thereon.

3. The floor repair kit of claim 1 wherein:  
said at least one filler is resin.

4. The floor repair kit of claim 2 wherein:  
said at least one filler is resin.

5. The floor repair kit of claim 1 wherein:  
said at least one hardener is epoxy.

6. The floor repair kit of claim 2 wherein:  
said at least one hardener is epoxy.

7. The floor repair kit of claim 3 wherein:  
said at least one hardener is epoxy.

8. The floor repair kit of claim 1 further comprising:  
a predetermined amount of at least one varnish.

9. The floor repair kit of claim 2 further comprising:  
a predetermined amount of at least one varnish.

10. The floor repair kit of claim 1 further comprising:  
at least one sanding block.

11. The floor repair kit of claim 2 further comprising:  
at least one sanding block.

12. The floor repair kit of claim 1 further comprising:  
at least one syringe.

13. The floor repair kit of claim 1 further comprising:  
at least one mixing cup.

14. The floor repair kit of claim 1 further comprising:  
at least one knife blade.

15. The floor repair kit of claim 1 further comprising:  
at least one knife.

16. The floor repair kit of claim 1 further comprising:  
at least one brush.

17. The floor repair kit of claim 1 further comprising:  
a predetermined amount of marble dust.

18. The floor repair kit of claim 1 further comprising:  
a predetermined amount of steel wool.

19. The floor repair kit of claim 1 further comprising:  
at least one mixing stick.

20. A floor repair kit for repairing at least one damaged area on a flooring of a predetermined material, said floor repair kit comprising:

at least one tint;  
a predetermined amount of resin;  
a predetermined amount of epoxy;  
a predetermined amount of at least one varnish;  
a predetermined amount of marble dust;  
at least one sanding block;  
at least one syringe;  
at least one mixing cup;  
at least one knife blade;  
at least one knife;  
at least one brush;  
a predetermined amount of steel wool;  
at least one mixing stick; and  
at least one protective material having a top surface and a bottom surface wherein said bottom surface has a predetermined amount of adhesive located thereon.

21. A method for using a floor repair kit for repairing at least one damaged area on a flooring of a predetermined material, said floor repair kit comprising a predetermined amount of at least one tint; a predetermined amount of at least one filler; at least one hardener; and at least one protective material having a top surface and a bottom surface wherein said bottom surface has a predetermined amount of adhesive located thereon, said method comprising steps of:

a. adding a predetermined amount said tint to said filler to create a tint/filler mixture;  
b. adding a predetermined amount of said hardener to said tint and filler mixture to create a tint/filler/hardener mixture;  
c. applying a predetermined amount of said tint/filler/hardener mixture to a damaged area on a floor;  
d. permitting said tint/filler/hardener mixture to harden for a predetermined amount of time;  
e. securing said bottom surface of said at least one protective material over said hardened tint/filler/hardener mixture and over a predetermined area surrounding said damaged area on said floor;  
f. cutting a predetermined amount of said at least one protective material located over said hardened tint/filler/hardener mixture so as to expose said hardened tint/filler/hardener mixture;  
g. sanding said exposed hardened tint/filler/hardener mixture to a predetermined level; and  
h. removing said at least one protective material from said floor.

22. The method of claim 21 further comprising a step after step h of:

i. buffing said hardened tint/filler/hardener mixture with steel wool.

**23.** A method for using a floor repair kit for repairing at least one damaged area on a flooring of a predetermined material, said floor repair kit comprising a predetermined amount of at least one tint; a predetermined amount of at least one filler; at least one hardener; and at least one protective material having a top surface and a bottom surface, said method comprising steps of:

- a. adding a predetermined amount said tint to said filler to create a tint/filler mixture;
- b. adding a predetermined amount of said hardener to said tint and filler mixture to create a tint/filler/hardener mixture;
- c. applying a predetermined amount of said tint/filler/hardener mixture to a damaged area on a floor;
- d. permitting said tint/filler/hardener mixture to harden for a predetermined amount of time;

e. placing said bottom surface of said at least one protective material over said hardened tint/filler/hardener mixture and over a predetermined area surrounding said damaged area on said floor;

f. cutting a predetermined amount of said at least one protective material located over said hardened tint/filler/hardener mixture so as to expose said hardened tint/filler/hardener mixture;

g. sanding said exposed hardened tint/filler/hardener mixture to a predetermined level; and

h. removing said at least one protective material from said floor.

**24.** The method of claim **23** further comprising a step after step h of:

i. buffing said hardened tint/filler/hardener mixture with steel wool.

\* \* \* \* \*