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Appliance outlet box

Abstract

An outlet box assembly includes an outlet box housing, configurable between a first and second orientation, and a funnel assembly. The outlet box housing includes a first wall portion and a second wall portion. The first wall portion includes a first socket portion, including a first knock out portion, and at least one through hole. The first knock out portion includes a first knock out body and an area of weakening. The through hole attaches a plumbing fitting to the first wall portion. The second wall portion includes a second socket portion including a second knock out portion including a second knock out body and an area of weakening. The funnel assembly has a fixed funnel portion and a funnel cover configured to be removably attached to the fixed funnel portion. The funnel assembly is configured to direct fluid to the first or second socket portion.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATION (1) This application claims the benefit of U.S. patent application Ser. No. 17/811,231, filed Jul. 7, 2022, now issued U.S. Pat. No. 12,077,950, which claims priority to U.S. Provisional Patent Application Ser. No. 63/219,640, filed Jul. 8, 2021.

INCORPORATION BY REFERENCE
(1) U.S. patent application Ser. No. 17/811,231, filed Jul. 7, 2022, and U.S. Provisional Application Ser. No. 63/219,640, filed Jul. 8, 2021 are hereby incorporated by reference as if set forth in their entireties.
FIELD
(2) The present application relates generally to appliance outlet boxes.
BACKGROUND
(3) Appliance outlet boxes are used in the market for installation of appliances. For example, outlet boxes are used when installing appliances such as washing machines, refrigerators, and dish washers. There is further need in the market for appliance outlet boxes that can be used for installation of water heaters. Existing appliance outlet boxes do not provide cost affordable drainage options for condensate and temperature and pressure relief drain lines nor the ability to easily configure drain funnels with outlet box drains and inlet piping. Also, existing appliance outlet boxes do not provide acoustic isolation and need a solution to reduce the transfer of

plumbing noise and vibration in occupied spaces. Additionally, existing appliance outlet boxes do not provide adequate structural support and need more rigid brackets for support.

SUMMARY

(4) Various implementations provide for an outlet box assembly that includes an outlet box housing and a funnel assembly. The outlet box housing includes a first wall portion and a second wall portion. The first wall portion includes a first socket portion and at least one through hole. The first socket portion is configured for receipt of at least a portion of a conduit and includes a first knock out portion. The first knock out portion includes a first knock out body and an area of weakening disposed to connect the first knock out body to the first wall portion and configured to facilitate removal of the first knock out body from the first wall portion. The through hole is configured to facilitate attachment of a plumbing fitting to the first wall portion. The second wall portion includes a second socket portion configured for receipt of at least a portion of tubing and including a second knock out portion. The second knock out portion includes a second knock out body and an area (or line) of weakening disposed to connect the second knock out body to the second wall portion.

(5) The funnel assembly includes a stationary/fixed funnel portion extending between the first wall portion and the second wall portion and a funnel cover configured to be removably attached to the stationary/fixed funnel portion. The funnel assembly defines an opening configured to allow passage of at least a portion of a conduit into the outlet box housing, and is configured to direct fluid flow to the first socket portion or the second socket portion. The outlet box housing is configurable between a first orientation, in which the first wall portion defines a bottom wall of the outlet box housing and the second wall portion defines a top wall of the outlet box housing, and a second orientation, in which the second wall portion is positioned opposite the first wall portion and the second wall portion defines a bottom wall of the outlet box housing and the first wall portion defines a top wall of the outlet box housing.

(6) Various other implementations provide for an outlet box assembly that includes an outlet box housing. The outlet box housing includes a first wall portion and a second wall portion. The first wall portion includes a first socket portion and at least one through hole. The first socket portion is configured for receipt of at least a portion of a conduit and includes a first knock out portion. The first knock out portion includes a first knock out body and an area of weakening disposed to connect the first knock out body to the first wall portion and is configured to facilitate removal of the first knock out body from the first wall portion. The through hole is configured to facilitate attachment to a plumbing fitting using a collet assembly (e.g., an attachment or locking assembly) configured to attach the plumbing fitting to the outlet box housing.

(7) The collet assembly includes a nut and a collet body. The nut includes an inner surface that defines a passage with one or more internal threads positioned along the inner surface. The collet body includes one or more external threads configured to engage with the one or more internal threads of the nut and defines a longitudinally-extending collet body through hole configured to receive a plumbing fitting. The collet body further defines at least one longitudinal slot configured to allow the collet body to radially compress when the collet body is attached to the nut. The second wall portion includes a second socket portion configured for receipt of at least a portion of tubing and including a second knock out portion. The second knock out portion includes a second knock out body and an area of weakening disposed to connect the second knock out body to the second wall portion. The outlet box housing is configurable between a first orientation, in which the first wall portion defines a bottom wall of the outlet box housing and the second wall portion defines a top wall of the outlet box housing, and a second orientation, in which the second wall portion is positioned opposite the first wall portion and the second wall portion defines a bottom wall of the outlet box housing and the first wall portion defines a top wall of the outlet box housing.

(8) Various other implementations provide for a method of assembling an outlet box. The method includes inserting a collet body into a through hole of a first wall portion, engaging one or more

internal threads of a nut with the one or more external threads of the collet body, and radially compressing the collet body along the at least one longitudinal slot with the nut. The collet body includes one or more external threads and defines a longitudinally-extending collet body through hole configured to receive one of a plumbing fitting. The collet body further defines at least one longitudinal slot. The nut includes an inner surface that defines a passage with the one or more internal threads positioned along the inner surface.

(9) Various other implementations provide for an outlet box assembly that includes a housing defined by a first wall portion and a second wall portion. The first wall portion and the second wall portion include a first socket portion, a second socket portion, and a funnel cover. The first socket portion is provided on the first wall portion and configured to be coupled to a conduit when the housing is in a first orientation. The second socket portion is provided on the second wall portion and configured to be coupled to the conduit when the housing is in a second orientation. The funnel cover is sized for inserting in the first socket portion or the second socket portion and sized for receiving a hose passing into the funnel cover, through the first socket portion or the second socket portion, and into the conduit.

(10) Various other implementations provide for an outlet box assembly that includes an outlet box housing. The outlet box housing includes at least one hole configured to facilitate attachment of a plumbing fitting and an elastomeric gasket of a predetermined thickness and a predetermined stiffness to isolate the plumbing fitting and reduce transmission of noise and vibration.

(11) Various other implementations provide for an outlet box assembly that includes an outlet box housing. The outlet box housing includes at least two holes configured to facilitate attachment of plumbing fittings with outlet ends substantially perpendicular to the inlet ends. The outlet sides of said plumbing fitting have ¾″ or larger male tapered pipe threads wherein one plumbing fitting is an elbow fitting and the other plumbing fitting is a valve.

(12) Various other implementations provide for an outlet box assembly that includes an outlet box housing. The outlet box assembly includes an intumescent fire wrap support bracket that includes a back face with retainers for supporting an intumescent material and side faces that extend from the back face through a wall.

(13) These and other features together with the organization and manner of operation thereof, will become apparent from the following detailed description when taken in conjunction with the accompanying drawings, wherein like elements have like numerals throughout the several drawings described below.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

(1) FIG. **1** is an exploded view of an outlet box assembly according to one embodiment.

(2) FIG. **2** is an exploded view of a valve assembly of the outlet box assembly of FIG. **1**.

(3) FIG. **3**A is a front view of the outlet box assembly of FIG. **1**.

(4) FIG. **3**B is a top view of the outlet box assembly of FIG. **1**.

(5) FIG. **3**C is a right side view of the outlet box assembly of FIG. **1**.

(6) FIG. **3**D is a bottom view of the outlet box assembly of FIG. **1**.

(7) FIG. **3**E is a left side view of the outlet box assembly of FIG. **1**.

(8) FIG. **4**A is a front view of the outlet box assembly of FIG. **1**.

(9) FIG. **4**B is a cross-sectional view through section **4**B-**4**B of FIG. **4**A.

(10) FIG. **5**A is a front, perspective view of a collet body of the outlet box assembly of FIG. **1**.

(11) FIG. **5**B is a back, perspective view of the collet body of FIG. **5**A.

(12) FIG. **6**A is a front, perspective view of a nut of the outlet box assembly of FIG. **1**.

(13) FIG. **6**B is a back, perspective view of the nut of FIG. **6**A.

(14) FIG. **7** is an exploded view of an outlet box assembly according to another embodiment.
(15) FIG. **8**A is a front view of the outlet box assembly of FIG. **7**.
(16) FIG. **8**B is a top view of the outlet box assembly of FIG. **7**.
(17) FIG. **8**C is a right side view of the outlet box assembly of FIG. **7**.
(18) FIG. **8**D is a bottom view of the outlet box assembly of FIG. **7**.
(19) FIG. **8**E is a left side view of the outlet box assembly of FIG. **7**.
(20) FIG. **9** is an exploded view of an outlet box assembly according to another embodiment.
(21) FIG. **10** is a perspective view of a valve and elbow assembly with drains of the outlet box assembly of FIG. **9**.
(22) FIG. **11**A is a front view of the outlet box assembly of FIG. **9**.
(23) FIG. **11**B is a cross-sectional view through section **11**B-**11**B of FIG. **11**A
(24) FIG. **12** is a perspective view of a valve and elbow assembly of the outlet box assembly of FIG. **9**.
(25) FIG. **13** is an exploded view of a valve and elbow assembly of the outlet box assembly of FIG. **9**.
(26) FIG. **14**A is an exploded view of a valve assembly of an outlet box assembly according to another embodiment.
(27) FIG. **14**B is a side view of the outlet box assembly of FIG. **14**A.
(28) FIG. **15** is a perspective view of an outlet box assembly according to another embodiment.
(29) FIG. **16** is an exploded view of the outlet box assembly of FIG. **15** showing an outlet box housing and an intumescent fire wrap support bracket.
(30) FIG. **17** is a perspective view of the outlet box assembly of FIG. **15** with the intumescent fire wrap support bracket exploded away from the outlet box housing.
(31) FIG. **18** is an enlarged view of a portion of FIG. **17** depicting a latch.
(32) FIG. **19** is an enlarged view of a portion of FIG. **17** depicting a latch tab.
(33) FIGS. **20**-**22** are multiple perspective views of the intumescent fire wrap support bracket of FIG. **17**.
(34) FIG. **23** is an enlarged view of a portion of FIG. **20**.
(35) FIG. **24** is an enlarged view of a portion of FIG. **22**.
(36) FIG. **25** is a perspective view of the intumescent fire wrap support bracket of FIG. **17** showing distal end tabs.
(37) FIG. **26** is a perspective view of the intumescent fire wrap support bracket of FIG. **25** showing the distal end tabs in a first folded position for mounting within a single wall structure.
(38) FIG. **27** is an enlarged view of a portion of FIG. **26**.
(39) FIG. **28** is a perspective view of the outlet box assembly of FIG. **15** mounted to a single wall with studs.
(40) FIG. **29** is a perspective view of the outlet box assembly of FIG. **28** including a cover.
(41) FIG. **30** is a perspective view of the intumescent fire wrap support bracket of FIG. **25** showing the distal end tabs in a second folded position for mounting within a double wall structure.
(42) FIG. **31** is an enlarged view of a portion of FIG. **30**.
(43) FIG. **32** is a perspective view of the outlet box assembly of FIG. **15** mounted to a double wall with studs.
(44) FIG. **33** is a perspective view of the outlet box assembly of FIG. **32** including a cover.
(45) FIG. **34** is a perspective view of an outlet box assembly including an intumescent support bracket according to another embodiment.
(46) FIG. **35** is a perspective view of the intumescent support bracket of FIG. **34** with plumbing brackets.
(47) FIG. **36** is a perspective view of the outlet box assembly of FIG. **34** showing an outlet box housing coupled to the intumescent support bracket in accordance with the principles of the present disclosure.

(48) FIG. **37** is a perspective view of a tab of the intumescent support bracket coupled to the plumbing bracket and the outlet box housing.

DETAILED DESCRIPTION

(49) Referring to the figures generally, various implementations disclosed herein relate to appliance outlet box assemblies. The appliance outlet box assemblies disclosed herein improve the ease and quality of installation of appliances, such as the installation of water heaters or washing machines, and reduce the installation time for end users.

(50) FIGS. **1**-**6**B show an outlet box assembly **100** according to one embodiment. FIG. **1** shows the outlet box assembly **100** that includes an outlet box housing **102**. The outlet box housing **102** includes a first wall portion **104** and a second wall portion **106**. The first wall portion **104** includes a first socket portion **108** that is configured for receipt of a conduit. The first socket portion **108** includes a first knock out portion **112**. The first knock out portion **112** includes a first knock out body **114** and an area (or line) of weakening **116**. The area (or line) of weakening **116** is disposed to connect the first knock out body **114** to the first wall portion **104** and is configured to facilitate removal of the first knock out body **114** from the first wall portion **104**. The first wall portion **104** also includes a through hole **118** that is configured to facilitate attachment of a plumbing fitting **120** to the first wall portion **104**. Speaking generally once a drain pipe is attached, it is then pressure tested with the knock-out bodies in place, which are sufficiently strong to allow for pressure testing but frangible enough to be easily removed. In some embodiments, the knock-out bodies may be made of styrene, acrylonitrile butadiene styrene (ABS), fire rated ABS, PVC, combinations of the foregoing, or alternative materials.

(51) The plumbing fitting **120** includes an inlet **142** and at least one of a metal tube, a plastic tube, a plastic fitting, or a metal fitting. The second wall portion **106** includes a second socket portion **122** that is configured for receipt of a conduit. The second socket portion **122** includes a second knock out portion **126**. The second knock out portion **126** includes a second knock out body **128** and an area (or line) of weakening **116**. The area (or line) of weakening **116** is disposed to connect the second knock out body **128** to the second wall portion **106** and is configured to facilitate removal of the second knock out body **128** from the second wall portion **106**. The first knock out body **114** and the second knock out body **128** are configured to be removed from the respective first wall portion **104** and the second wall portion **106** upon application of an external force. The first and second knock out bodies **114**, **128** allow for coverage of a drain in a manner that permits ready removal for pressure testing during the rough-in phase of installation.

(52) Further, the outlet box assembly **100** includes at least one mounting flange **130** that is configured to attach to at least one stud **132** using a bracket **134**. Additionally, the outlet box assembly **100** includes a frame **136** and may be configured to attach to drywall **138**. The outlet box assembly **100** also includes a cover **140** that is configured to attach to the outlet box housing **102** and located on the opposite side of the drywall **138** as the frame **136**. Additionally, in some implementations, the outlet box housing **102** including the first wall portion **104**, the second wall portion **106**, and the surface of the outlet box assembly **100** are internally sloped (tapered) to direct any fluid that may enter the outlet box assembly **100** to drain toward at least one of the first socket portion **108** or the second socket portion **122**. The extent of sloping (angle of inclination) may vary according to different implementations. In some embodiments, the slope may be angled from about 1 degree to about 15 degrees. Various features will be discussed in more detail below.

(53) FIG. **2** shows the outlet box assembly **100** that includes a funnel assembly **200**. The funnel assembly **200** includes a stationary/fixed funnel portion **202** that extends between the first wall portion **104** and the second wall portion **106**. The funnel assembly **200** also includes a funnel cover **204** that is configured to be removably attached to the stationary/fixed funnel portion **202**. The funnel assembly **200** defines an opening/passage **206** that is configured to direct fluid flow to the first socket portion **108** or the second socket portion **122**. Speaking generally the wall portions (e.g., wall portions **104**, **106**), together with the funnel portion **202** and its associated funnel cover

204 serve as an air gap to prevent siphoning and back flow of the drainage into a potable water supply. Specifically, the wall portions **104**, **106** and the funnel portion **202** prevent the falling water from the water draining from the upper conduits from spraying out of the outlet box housing **102** into the conduit.

(54) Further, as seen in FIG. **2**, a plumbing fitting **120** is configured to attach to the first wall portion **104** by a collet assembly **208**. The collet assembly **208** includes a nut **210** and a collet body **212**. The nut **210** includes an inner surface **214** that defines a passage **216** with one or more internal threads **218** positioned along the inner surface **214**. The collet body **212** includes one or more external threads **220** that are configured to engage with the one or more internal threads **218** of the nut **210**. The collet body **212** defines a longitudinally-extending collet body through hole **222** that is configured to receive a plumbing fitting **120**. The collet body **212** further defines at least one longitudinal slot **224** that is configured to allow the collet body **212** to radially compress when the collet body **212** is attached to the nut **210**. The collet body **212** may be configured with one or more tapered faces in some embodiments. The collet body **212** is configured to support approximately **3**/**4**″ pipes in various implementations. In some implementations, alternative sizes of pipes may be retained by the collet body **212**.

(55) FIGS. **3**A-**3**E show the outlet box assembly **100** in a first orientation in which the first wall portion **104** defines a bottom wall **302** of the outlet box housing **102** and the second wall portion **106** defines a top wall **304** of the outlet box housing **102**. The funnel cover **204** is configured to direct fluid to either the first socket portion **108** or the second socket portion **122** in the first orientation. In particular, the funnel can be attached onto the outlet box housing **102** in either the first orientation or a second orientation as discussed below.

(56) Further, as seen in FIGS. **3**A-**3**E, the first wall portion **104** includes a first through hole **306** and a second through hole **308** which are configured to facilitate attachment of at least one plumbing fitting **120** to the first wall portion **104**. The first through hole **306** and the second through hole **308** are positioned on the same wall portion or on the opposite wall portion as the socket portion (either the first socket portion **108** or the second socket portion **122**) to which the funnel cover **204** is directing fluid. Further, the first through hole **306** and the second through hole **308** extend between an inner first wall portion side **330** and an outer first wall portion side **332** of the first wall portion **104**. When the collet body **212** and the nut **210** are attached to the first wall portion **104**, at least a portion of the collet body **212** extends along the inner first wall portion side **330** and at least a portion of the collet body **212** is positioned between the nut **210** and the outer first wall portion side **332**.

(57) Additionally, the first knock out body **114** and the second knock out body **128** each include a first extending tab **310** and a second extending tab **312** projected inside of the outlet box assembly **100**. The first extending tab **310** and the second extending tab **312** are configured to introduce stress when compressed together to the area (or line) of weakening **116** which causes the area (or line) of weakening **116** to fracture. That is, the material at the line of weakening **116** is sufficiently frangible to be fractured upon application of moderate force, e.g., a manually exerted force. The fracture allows for the removal of at least one of the first knock out body **114** or the second knock out body **128**. Additionally, the first knock out body **114** has a first diameter **314** and includes first sub-knock out bodies **316** having diameters **318** that are smaller than the first diameter **314**. The first sub-knock out bodies **316** include an area (or line) of weakening **116** and are configured for removal from the first wall portion **104** upon application of an external force.

(58) The second knock out body **128** has a second diameter **320** and includes second sub-knock out bodies **322** having diameters **324** that are smaller than the second diameter **320**. The second sub-knock out bodies **322** include an area (or line) of weakening **116** and are configured for removal from the second wall portion **106** upon application of an external force. The first sub-knock out bodies **316** and the second sub-knock out bodies **322** are configured to receive a drain pipe or a condensate line. The sub-knock out bodies allow are readily removable and may be configured for

use with ¾″ copper and/or iron pipes, for example. The sub-knockout bodies may receive a condensate line for an air conditioner or may drain overflowing fluid from a water heater (e.g., from a temperature and pressure relief valve) to prevent the water heating from damage (e.g., from becoming too full and bursting).

(59) FIGS. **4**A-**4**B show the outlet box assembly **100** that includes the frame **136** and attachment teeth **402** that are configured to mount to the outlet box assembly **100**. The attachment teeth **402** are also configured to allow for adjustment to various drywall thicknesses. FIGS. **5**A-**5**B show the collet body **212**. The collet body **212** includes one or more external threads **220**. The collet body **212** defines a longitudinally-extending collet body through hole **222**. The collet body **212** further defines at least one longitudinal slot **224** that is configured to allow the collet body **212** to radially compress.

(60) FIGS. **6**A-**6**B show the nut **210**. The nut **210** includes an inner surface **214** that defines a passage **216** with one or more internal threads **218** positioned along the inner surface **214**. FIGS. **7**-**8**E show an outlet box assembly **700** according to another embodiment. FIG. **7** depicts a second orientation in which the outlet box assembly **700** is rotated as compared to FIG. **1**. FIG. **7** shows the outlet box assembly **700** that includes an outlet box housing **102**. The outlet box housing **102** includes a first wall portion **104** and a second wall portion **106**. The first wall portion **104**, and thus the first through hole **306** and the second through hole **308**, are located on the top wall **304** of the outlet box assembly **700** instead of the bottom wall **302** of the outlet box assembly **700**. The first wall portion **104** also includes a first socket portion **108** that is configured for receipt of a conduit. The second wall portion **106** includes a second socket portion **122** that is configured for receipt of a conduit.

(61) Further, it is shown that the outlet box assembly **700** includes at least one mounting flange **130** that is configured to attach to at least one stud **132** using the bracket **134**. Additionally, the outlet box housing **102**, including the first wall portion **104**, the second wall portion **106**, and the surface of the outlet box assembly **700**, are internally sloped to direct any fluid that may enter the outlet box assembly **700** to drain toward at least one of the first socket portion **108** or the second socket portion **122**.

(62) FIGS. **8**A-**8**E show the outlet box assembly **700** in a second orientation in which the first wall portion **104** defines a top wall **304** of the outlet box housing **102** and the second wall portion **106** defines a bottom wall **302** of the outlet box housing **102**. The first wall portion **104** and the second wall portion **106** being adjustable between (i) a first orientation in which the first wall portion **104** is positioned opposite the second wall portion **106**, the first wall portion **104** forming a bottom wall **302** and the second wall portion **106** forming a top wall **304**, and (ii) a second orientation in which the second wall portion **106** is positioned opposite the first wall portion **104**, the second wall potion **106** forming a bottom wall **302** and the first wall portion **104** forming a top wall **304**. The funnel cover **204** is configured to direct fluid to either the first socket portion **108** or the second socket portion **122** in the second orientation. Thus, the funnel allows for greater leeway and flexibility in terms of orientation.

(63) Additionally, as appreciated from FIGS. **8**A-**8**E, the first socket portion **108** includes a first knock out portion **112**. The first knock out portion **112** includes a first knock out body **114** and an area (or line) of weakening **116**. The area (or line) of weakening **116** is disposed to connect the first knock out body **114** to the first wall portion **104** and is configured to facilitate removal of the first knock out body **114** from the first wall portion **104**. The second socket portion **122** includes a second knock out portion **126**. The second knock out portion **126** includes a second knock out body **128** and an area (or line) of weakening **116**. The area (or line) of weakening **116** is disposed to connect the second knock out body **128** to the second wall portion **106** and is configured to facilitate removal of the second knock out body **128** from the second wall portion **106**. The first knock out body **114** and the second knock out body **128** are configured to be removed from the respective first wall portion **104** and the second wall portion **106** upon application of an external

force.
(64) Further, in some implementations, the first wall portion **104** includes a first through hole **306** and a second through hole **308** which are configured to facilitate attachment of at least one plumbing fitting **120** to the first wall portion **104**. The plumbing fitting **120** includes at least one of a metal tube, a plastic tube, a plastic fitting, or a metal fitting. The first through hole **306** and the second through hole **308** are positioned on the same wall portion or on the opposite wall portion as the socket portion (either the first socket portion **108** or the second socket portion **122**) to which the funnel cover **204** is directing fluid. Additionally, the first through hole **306** and the second through hole **308** extend between an inner first wall portion side **330** and an outer first wall portion side **332** of the first wall portion **104**. When the collet body **212** and the nut **210** are attached to the first wall portion **104**, at least a portion of the collet body **212** extends along the inner first wall portion side **330** and at least a portion of the collet body **212** is positioned between the nut **210** and the outer first wall portion side **332**.
(65) Further, it is shown that the first knock out body **114** and the second knock out body **128** each include a first extending tab **310** and a second extending tab **312** projected inside of the outlet box assembly **700**. The first extending tab **310** and the second extending tab **312** are configured to introduce stress when compressed together to the area (or line) of weakening **116** which causes the area (or line) of weakening **116** to fracture. The fracture allows for the removal of at least one of the first knock out body **114** or the second knock out body **128**. Additionally, the first knock out body **114** has a first diameter **314** and includes first sub-knock out bodies **316** having diameters **318** that are smaller than the first diameter **314**.
(66) The first sub-knock out bodies **316** include an area (or line) of weakening **116** and are configured for removal from the first wall portion **104** upon application of an external force. The second knock out body **128** has a second diameter **320** and includes second sub-knock out bodies **322** having diameters **324** that are smaller than the second diameter **320**. The second sub-knock out bodies **322** include an area (or line) of weakening **116** and are configured for removal from the second wall portion **106** upon application of an external force. The first sub-knock out bodies **316** and the second sub-knock out bodies **322** are configured to receive a drain pipe or a condensate line.
(67) FIGS. **9-13** show an outlet box assembly **900** according to another embodiment. FIG. **9** shows the outlet box assembly **900** that includes an outlet box housing **102**. The outlet box housing **102** includes a first wall portion **104** and a second wall portion **106**. The outlet box assembly **900** is shown in a first orientation in which the first wall portion **104**, and therefore the first through hole **306** and the second through hole **308**, are located on the bottom wall **302** of the outlet box assembly **900** similar to the orientation of the outlet box assembly **100** in FIG. **1**.
(68) Notably, FIG. **9** shows at least one plumbing fitting **120** that extends beyond the outlet box housing **102** and a cover **140** including at least one escutcheon **902**. Further, the second wall portion **106** includes a second socket portion **122** that is configured for receipt of a conduit. The second socket portion **122** includes a second knock out portion **126**. The second knock out portion **126** includes a second knock out body **128** and an area (or line) of weakening **116**. The area (or line) of weakening **116** is disposed to connect the second knock out body **128** to the second wall portion **106** and is configured to facilitate removal of the second knock out body **128** from the second wall portion **106**. The second knock out body **128** is configured to be removed from the second wall portion **106** upon application of an external force.
(69) In addition, it is shown that the outlet box assembly **900** includes at least one mounting flange **130**. In some implementations, the outlet box housing **102**, including the first wall portion **104**, the second wall portion **106**, and the surface of the outlet box assembly **900**, are internally sloped to direct any fluid that may enter the outlet box assembly **900** to drain toward at least one of the first socket portion **108** or the second socket portion **122**. The extent of sloping/tapering may vary depending on various installation configurations.

(70) FIG. **10** shows the outlet box assembly **900** that includes a funnel assembly **200**. The funnel assembly **200** includes a stationary/fixed funnel portion **202** that extends between the first wall portion **104** and the second wall portion **106**. The funnel assembly **200** also includes a funnel cover **204** that is configured to be removably attached to the stationary/fixed funnel portion **202**. The funnel assembly **200** defines an opening/passage **206** that is configured to direct fluid flow to the first socket portion **108** or the second socket portion **122**. The first socket portion **108** and the second socket portion **122** are configured for receipt of a conduit **1012**. Further, a plumbing fitting **120** is configured to attach to the first wall portion **104** by a collet assembly **208**.
(71) In various implementations, the plumbing fitting **120** includes at least one of a compression style valve **1000** or an elbow fitting **1002** including an outlet **1004** positioned at a right angle from the inlet **142**. The outlet **1004** includes threads **1008** that are configured to attach to at least one of a hose, a flexible connector, or a fitting. The external threading allows for a variety of connections to be made with ease. The compression style valve **1000** includes at least one of metal or plastic and is configured to be one of at least a quarter turn shutoff valve or a multi-turn valve.
(72) FIGS. **11**A-**11**B show the outlet box assembly **900** that includes the compression style valve **1000** that includes the outlet **1004** positioned at a right angle from the inlet **142** and is configured to extend beyond a third wall portion **1010** connected to both of the first wall portion **104** and the second wall portion **106** and the frame **136**.
(73) FIG. **12** shows the outlet box assembly **900** that includes the first knock out body **114** that includes a first extending tab **310** and a second extending tab **312** projected inside of the outlet box assembly **900**. The first extending tab **310** and the second extending tab **312** are configured to introduce stress when compressed together to the area (or line) of weakening **116** which causes the area (or line) of weakening **116** to fracture. The fracture allows for the removal of the first knock out body **114**.
(74) FIG. **13** shows the outlet box assembly **900** that includes the collet assembly **208**. The collet assembly **208** includes a nut **210** and a collet body **212**. The nut **210** includes an inner surface **214** that defines a passage **216** with one or more internal threads **218** positioned along the inner surface **214**. The collet body **212** includes one or more external threads **220** that are configured to engage with the one or more internal threads **218** of the nut **210**. The collet body **212** defines a longitudinally-extending collet body through hole **222** that is configured to receive at least one compression style valve **1000** or elbow fitting **1002**. The collet body **212** further defines at least one longitudinal slot **224** that is configured to allow the collet body **212** to radially compress when the collet body **212** is attached to the nut **210**. Further, a rear wall **1300** may be made of a fire rated material.
(75) Further, in some implementations, the outlet box assembly **900** includes the first wall portion **104** that includes a first through hole **306** and a second through hole **308** which are configured to facilitate attachment of at least one compression style valve **1000** or elbow fitting **1002** to the first wall portion **104**. The first through hole **306** and the second through hole **308** are positioned on the same wall portion or on the opposite wall portion as the socket portion (either the first socket portion **108** or the second socket portion **122**) to which the funnel cover **204** is directing fluid.
(76) FIGS. **14**A-**14**B show an outlet box assembly **1400** according to another embodiment that includes an elastomeric gasket **1404** rather than a collet assembly **208**. The outlet box assembly **1400** includes a valve assembly **1402** including a plumbing fitting **120** that is configured to attach to a first wall portion **104** by an elastomeric gasket **1404**. The elastomeric gasket **1404** includes a longitudinally-extending through hole **1406** configured to radially compress the plumbing fitting **120**. The elastomeric gasket **1404** is also configured to reduce the transmission of vibration from a plurality of pipes installed in the wall to the elastomeric gasket **1404**. The elastomeric gasket **1404** is positioned on one side of collet body **212**, with a liner **1412**, sleeve **1414** receiving the liner **1412** and threaded nut **210** being provided on a same side of the gasket **1404** as the collet body **212**. On an opposite side of the elastomeric gasket **1404** from the collet body **212**, the elastomeric gasket

1404 is disposed to abut against a hex nut **1410** which is configured to receive washer **1408** as shown in FIG. **14**A.

(77) With reference to FIG. **9**, FIG. **10**, and FIG. **14**A, another embodiment includes the outlet box assembly **900** having an outlet box housing **102**. The outlet box housing **102** includes at least one hole **306** that is configured to facilitate attachment of a plumbing fitting **120**. The outlet box housing **102** also includes an elastomeric gasket **1404** of sufficient thickness and material properties such as hardness, stiffness and shock absorptivity to isolate the plumbing fitting **120** and reduce transmission of noise and/or vibration. For example, the gasket **1404** may have a predetermined thickness and a predetermined stiffness. In addition, the plumbing fitting **120** is configured to attach to the first wall portion **104** by a collet fitting assembly **208**.

(78) Additionally, as seen in FIG. **10** for example, the plumbing fitting has at least one compression inlet **142** for the connection of a plumbing tube.

(79) Referring again to FIG. **9**, FIG. **10**, and FIG. **14**A, the outlet box housing **102** includes at least a pair of holes **306** and **308** configured to facilitate attachment of plumbing fittings **120** with outlet ends **1004** substantially perpendicular to the inlet ends **142**. Outlet sides **1014** of the plumbing fittings **120** may be provided with ¾″ or larger male tapered threads **1008**, although various embodiments may utilize other dimensions and/or threading. For example, the threads may be ¾″ to 1,″ or larger. In some embodiments, one plumbing fitting **120** is provided with an elbow fitting **1002** and the other plumbing fitting **120** is provided with a valve **1000**. Further, the outlets **1004** of the plumbing fittings **120** extend beyond the cavity created by the outlet box housing **102** for accessibility in attaching the plumbing fitting **120** to the plumbing elbow fitting **1002**. In particular, by allowing the outlets **1004** to extend so as to project outwardly beyond a perimeter of the housing **102**, the outlets **1004** may be readily reached, aiding in ease of use.

(80) Turning to FIG. **15**, an outlet box assembly **1500** is depicted according to another embodiment of the present disclosure. The outlet box assembly **1500** includes an outlet box housing **1502**. The outlet box housing includes a first wall portion **104** and a second wall portion **106**. The outlet box assembly **1500** is shown in a first orientation in which the first wall portion **104**, and therefore the first through hole **306** and the second through hole **308**, are located on the bottom wall **302** of the outlet box assembly **1500** similar to the orientation of the outlet box assemblies **100**, **900**. It will be appreciated that the outlet box assembly **1500** may be configured in the second orientation in which the first wall portion **104** defines a top wall **304** of the outlet box housing **1502** and the second wall portion **106** defines the bottom wall **302** of the outlet box housing **1502** similar to the outlet box assembly **700** shown in FIGS. **8**A-**8**E. In some implementations, the outlet box housing **1502**, including the first wall portion **104**, the second wall portion **106**, and the surface of the outlet box assembly **1500**, are internally sloped to direct any fluid that may enter the outlet box assembly **1500** to drain toward at least one of a first socket portion **108** or a second socket portion **122**. The extent of sloping/tapering may vary depending on various installation configurations.

(81) The outlet box assembly **1500** may have one or more parts of the outlet box assemblies **100**, **700**, **900**, **1400** described above. To the extent that the embodiments are similar, the description will not be repeated although certain part numbers may be shown in the Figures. Instead, the description will be directed to the primary differences. Specifically, the outlet box assembly **1500** differs in how the outlet box assembly **1500** includes an intumescent fire wrap support bracket **1504** that is coupled to the outlet box housing **1502**. The intumescent fire wrap support bracket **1504** may be comprised of a metal material.

(82) Turning to FIG. **16**, an exploded view of the outlet box assembly **1500** is depicted. The intumescent fire wrap support bracket **1504** includes a rear or back wall **1506** that defines a plurality of slots **1508** and first and second opposing arms **1510**, **1512**. The intumescent fire wrap support bracket **1504** has a first side **1514** (e.g., left side), a second side **1516** (e.g., right side), a third side **1518** (e.g., top side) and a fourth side **1520** (e.g., bottom side). The first arm **1510** can be positioned at the first side **1514** and the second arm **1512** can be positioned at the second side **1516**.

(83) Referring to FIG. **17**, the intumescent fire wrap support bracket **1504** is shown exploded away from the outlet box housing **1502**. The intumescent fire wrap support bracket **1504** may include a first flap **1522** at the first side **1514**, a second flap **1524** at the second side **1516**, a third flap **1526** at the third side **1518** and a fourth flap **1528** at the fourth side **1520**. The first and second arms **1510**, **1512** may extend perpendicularly from the back wall **1506** via the first and second flaps **1522**, **1524**. The first, second, third, and forth flaps **1522**, **1524**, **1526**, and **1528** are shown in a mounting configuration in preparation of being installed into a wall. The third and fourth flaps **1526**, **1528** may each define a cutout **1530** (e.g., a recess). The cutouts **1530** defined in the respective third and fourth flaps **1526**, **1528** may be shaped and sized to clip-on over the first and second socket portions **108**, **122** when the intumescent fire wrap support bracket **1504** is coupled to the outlet box housing **1502**. The first, second, third, and forth flaps **1522**, **1524**, **1526**, and **1528** may be foldable with respect to the back wall **1506** such that the intumescent fire wrap support bracket **1504** may be shipped in a flat orientation.

(84) The intumescent fire wrap support bracket **1504** can be attached (e.g., secured, coupled) to the outlet box housing **1502** via a latch mechanism **1532** (see FIG. **15**). As depicted in FIGS. **18-19**, the latch mechanism **1532** may include a latch **1534** on the first and second arms **1510**, **1512** of the intumescent fire wrap support bracket **1504** and a latch tab **1536** (e.g., a retention element) located on outer surfaces **1537** of first and second sides **1538**, **1540** of the outlet box housing **1502**. As such, the latch **1534** and the latch tab **1536** can make an interfering lock that creates the latch mechanism **1532**. When the intumescent fire wrap support bracket **1504** is attached to the outlet box housing **1502**, the first and second arms **1510**, **1512** can slide within respective openings **1542** defined between bracket members **1544** of the outlet box housing **1502**. The latch **1534** may slide over a ramp surface of the latch tab **1536** until the latch **1534** snaps in engagement with a snap-fit edge **1546** of the latch tab **1536**. That is, the latches **1534** may releasably interlock with the respective latch tabs **1536**.

(85) The first and second sides **1538**, **1540** of the outlet box housing **1502** may each include rail elements **1548** that define channels **1550** therealong. In the example depicted, the rail elements **1548** are shown on the first side **1538** and although the second side **1540** is not visible, the same configuration is provided on the second side **1540**. There are two opposing rail elements **1548** on the outer surfaces **1537** of the first and second sides **1538**, **1540** of the outlet box housing **1502**. The channels **1550** of the rail elements **1548** can be configured to receive opposing edges **1552** of the respective first and second arms **1510**, **1512** for proper positioning in the openings **1542** when the intumescent fire wrap support bracket **1504** is mounted to the outer box housing **1502**.

(86) Still referring to FIG. **18**, the latch **1534** may be defined by slits **1554** formed through the first and second arms **1510**, **1512** to act as a flexible latch. A distal end **1556** of the latch **1534** abuts the snap-fit edge **1546** of the latch tab **1536** to secure the intumescent fire wrap support bracket **1504** to the outlet box housing **1502**.

(87) The bracket members **1544** are shown at the first and second sides **1538**, **1540** of the outlet box housing **1502** at the top and bottom sides thereof. The bracket members **1544** may include fastener openings **1558** for receiving fasteners (not shown) to mechanically mount the outlet box assembly **1500** to a wall.

(88) Turning to FIGS. **20-22**, the intumescent fire wrap support bracket **1504** is shown with an intumescent material **1560**. The intumescent material **1560** is designed to mount on the backwall **1506** of the intumescent fire wrap support bracket **1504**. Specifically, the intumescent material **1560** is placed on an inner surface **1566** of the backwall **1506**. The backwall **1506** includes intumescent locating tabs **1562** and puncturing elements **1564** for securing the intumescent material **1560** to an inner surface **1566** of the backwall **1506** of the intumescent fire wrap support bracket **1504**.

(89) FIGS. **23-24** are enlarged views of the intumescent locating tabs **1562** and the puncturing elements **1564**. The intumescent fire wrap support bracket **1504** can be punched or stamped to

create cutouts **1568** in the backwall **1506**. When the intumescent fire wrap support bracket **1504** is punched, the intumescent locating tabs **1562** and the puncturing elements **1564** are created. The cutouts **1568** each have an edge **1570** that allow the intumescent locating tabs **1562** and the puncturing elements **1564** to extend outwardly therefrom toward the inner surface **1566** of the backwall **1506**. The intumescent locating tabs **1562** of the intumescent fire wrap support bracket **1504** bend along the edge **1570** for respectively retaining, securing, or locating the intumescent material **1560** on the intumescent fire wrap support bracket **1504**. For example, the intumescent locating tabs **1562** can be stamped to bend along the edge **1570** to extend outwardly from the inner surface **1566** of the intumescent fire wrap support bracket **1504** to support the intumescent material **1560** adjacent the inner surface **1566** of the backwall **1506**. Furthermore, the puncturing elements **1564** may be configured to extend outwardly relative to the inner surface **1566**. As such, when the intumescent material **1560** is mounted on the intumescent locating tabs **1562** of the intumescent fire wrap support bracket **1504**, the puncturing elements **1564** may puncture the intumescent material **1560** to help secure the intumescent material **1560** thereon.

(90) In certain examples, the intumescent material **1506** may have a pre-shaped structure in the form of an intumescent pad, although alternatives are possible. The intumescent pad can include a protective liner that is removable to expose an adhesive backing which permits the intumescent material **1560** to be secured to the inner surface **1566** of the backwall **1506**. As such, the outlet box assembly **1500** may be easily assembled in the field. The protective liner can be made from a film material formed from polyethylene or the like. The intumescent material may be constructed in accordance with U.S. patent application Ser. No. 63/229,314. The disclosure in the aforementioned U.S. patent application Ser. No. 63/229,314 is hereby incorporated herein in its entirety by this reference thereto. However, it should be understood that the intumescent material **1560** may have a construction which is different than the construction of the intumescent described in U.S. patent application Ser. No. 63/229,314.

(91) It is advantageous to have an intumescent material disposed adjacent to an access opening such that the intumescent material can expand to fill in holes when heated by a fire to close off penetration made by outlet box assemblies. The outlet box assembly **1500** may be mounted directly to a wall within a through-hole extending through the wall. The intumescent material **1560** can fill the gap between the wall and the outlet box assembly **1500** to ensure a complete seal when the outlet box assembly **1500** is completely assembled and attached to the wall. The intumescent material **1560** is designed to expand to fill in holes when heated by a fire to close off penetration made by outlet box assemblies. As such, when the intumescent material **1560** becomes hot, it will expand rapidly into the open areas around it but still remain kept inside the intumescent fire wrap support bracket **1504**. That is, the advantageous features of the intumescent fire wrap support bracket **1504** according to the present disclosure is the ability to control or contain the expansion of the intumescent material **1560** when exposed to heat. The first flap **1522**, second flap **1524**, third flap **1526** and fourth flap **1528** of the intumescent fire wrap support bracket **1504** are similar to ledges that keep the intumescent material **1560** in place on the intumescent fire wrap support bracket **1504**. When the temperature rises near a wall surface, the intumescent material **1560** will heat up and char when exposed to flames. When the intumescent material **1560** becomes hot enough, it will quickly expand to multiple times its original volume. This expansion will help to create a barrier, or seal, substantially preventing fire, heat, and smoke from moving from one area of a building to another for at least some period of time. Having the intumescent material **1560** disposed within the intumescent fire wrap support bracket **1504** improves the fire-stopping performance as the intumescent expands to fill in holes and close off the hole for the outlet box assembly **1500**. The intumescent fire wrap support bracket **1504** is configured to prevent the intumescent material **1560** from falling behind the wall which may hinder performance.

(92) FIGS. **25-26** depict the intumescent fire wrap support bracket **1504** of the outlet box assembly **1500**. The outlet box assembly **1500** with the intumescent fire wrap support bracket **1504** is

designed to be pushed through drywall **1572**, i.e., sheet rock. In certain examples, the drywall **1572** may include a single layer of sheet rock or a double layer of sheet rock. Typically, the drywall is ⅝ inches thick. As such, a double layer of drywall would be twice as thick. The intumescent fire wrap support bracket **1504** is designed to be used in both single or double wall applications.

(93) The first and second arms **1510**, **1512** of the intumescent fire wrap support bracket **1504** may each include first and second perforated (e.g., pierced, punctured, holed, slotted, creased) lines **1574**, **1576** at a distal end thereof. When bending along both the perforated lines **1574**, **1576**, tabs **1578** can be created. This double folded configuration can be used in a single drywall **1572** application as shown in FIG. **28**. That is, the tabs **1578** may be mounted on the outside to capture a single layer of drywall **1572** when the outlet box assembly **1500** is inserted into the drywall **1572**. FIG. **29** shows the complete assembly of the outlet box assembly **1500** with optional studs **1580** and the cover **136** attached.

(94) In certain examples, the outlet box assembly **1500** may be mounted within a double layer of sheet rock. As such, the tabs **1578** may be adjusted for the thicker wall. A single fold may be provided along the first perforated fold region **1574** to create the tabs **1578** as depicted in FIGS. **29-31**. Accordingly, the first and second arms **1510**, **1512** are longer for the thicker wall than for the single or thinner wall. The tabs **1578** may also include openings **1582** (see FIG. **27**) for mechanical attachment to the wall **1572**.

(95) Turning to FIGS. **34-35**, an outlet box assembly **1600** is depicted according to another embodiment of the present disclosure. The outlet box assembly **1600** is designed to prevent fires from spreading in buildings. The outlet box assembly **1600** includes an outlet box housing **1602** (see FIG. **36**) and an intumescent support bracket **1604** to help retain intumescent material **1606**. The intumescent support bracket **1604** is designed to keep the intumescent material **1606** within an area of a hole created in a wall for the outlet box assembly **1600**. The intumescent support bracket **1604** may be formed of a metallic material and is configured to couple to the outlet box housing **1602**.

(96) The outlet box assembly **1600** may have one or more parts of the outlet box assemblies **100**, **700**, **900**, **1400**, **1500** described above. To the extent that the embodiments are similar, the description will not be repeated although certain part numbers may be shown in the Figures. Instead, the description will be directed to the primary differences. Specifically, the outlet box assembly **1600** differs in how the intumescent support bracket **1604** is coupled to the outlet box housing **1602**.

(97) The intumescent support bracket **1604** includes a rear or back plate **1608** (e.g., backwall), a first flap **1610** at a first side **1612** (e.g., left side), a second flap **1614** at a second side **1616** (e.g., right side), a third flap **1618** at a third side **1620** (e.g., top side) and a fourth flap **1622** at a fourth side **1624** (e.g., bottom side). The intumescent support bracket **1604** may include perforated slots **1626** to form weakened portions around an outer periphery of the intumescent support bracket **1604** at the first, second, third, and fourth sides **1612**, **1616**, **1620**, **1624**. The perforated slots **1626** allow the first, second, third, and fourth flaps **1610**, **1614**, **1618**, **1622** to be bent and extend generally perpendicular to the rear plate **1608**.

(98) The first, second, third, and forth flaps **1610**, **1614**, **1618**, **1622** are shown in a mounting configuration in preparation of being installed into a wall. The third flap **1618** defines a cutout **1628** (e.g., a recess) shaped and sized to receive a plumbing fitting **1630** when the intumescent support bracket **1604** is coupled to the outlet box housing **1602**. The outlet box assembly **1600** is shown in a first orientation in which the fourth flap **1622** is located adjacent to a bottom wall **1632** (see FIG. **36**) of the outlet box housing **1602** similar to the orientation of the outlet box assemblies **100**, **900**, **1500**, although alternatives are possible. It will be appreciated that the outlet box assembly **1600** may be configured in a second orientation in which the fourth flap **1622** defines a top wall of the outlet box housing **1602**.

(99) The back plate **1608** includes intumescent locating tabs **1634** and puncturing elements **1636**

(see FIG. **35**) for securing the intumescent material **1606** to the intumescent support bracket **1604**. That is, the intumescent support bracket **1604** can be punched or stamped to create cutouts **1568** in the backwall **1506**. When the intumescent support bracket **1604** is made, the intumescent locating tabs **1634** and the puncturing elements **1636** are created. The intumescent locating tabs **1634** and the puncturing elements **1636** are configured to bend inwardly from the back plate **1608** to retain, secure, or locate the intumescent material **1606** on the intumescent support bracket **1604**. For example, the intumescent locating tabs **1634** can be stamped to bend and to extend inwardly from the back plate **1608** of the intumescent support bracket **1604** to support the intumescent material **1606** adjacent the back plate **1608**. When the intumescent material **1606** is mounted on the intumescent locating tabs **1634** of the intumescent support bracket **1604**, the puncturing elements **1636** may puncture the intumescent material **1606** to help secure the intumescent material **1606** thereon in a desired position.

(100) The back plate **1608** defines a cutout **1638** (e.g., a window, a relief opening, an aperture). The cutout **1638** may be substantially centered on the back plate **1608**, although alternatives are possible. When the intumescent material **1606** is mounted to the intumescent support bracket **1604**, the intumescent material **1606** is configured to cover (e.g., conceal, hide) the cutout **1638** defined in the back plate **1608**. The cutout **1638** can be substantially centered in relation to a back portion of the outlet box housing **1602**.

(101) The outlet box assembly **1600** may be mounted directly to a wall within a through-hole extending through the wall. The intumescent material **1606** can fill the gap between the wall and the outlet box assembly **1600** to ensure a complete seal when the outlet box assembly **1600** is completely assembled and attached to the wall. The intumescent material **1606** is designed to expand to fill in holes when heated by a fire to close off penetration made by outlet box assemblies. As such, when the intumescent material **1660** becomes hot, it will expand rapidly into the open areas around it but still remain kept inside the intumescent support bracket **1064**. Having the intumescent material **1606** disposed within the intumescent support bracket **1604** improves the fire-stopping performance as the intumescent expands to fill in holes and close off the hole for the outlet box assembly **1600**. The intumescent fire wrap support bracket **1504** is configured to prevent the intumescent material **1560** from falling behind the wall which may hinder performance.

(102) The advantageous features of the intumescent support bracket **1604** according to the present disclosure is the ability to allow further expansion of the intumescent material **1606** when exposed to heat. The cutout **1638** defined in the back plate **1608** of the intumescent support bracket **1604** allows the intumescent material **1606** to expand therethrough away from the outlet box housing **1602**. That is, the cutout **1638** provides a relief path for the intumescent material **1606** during expansion thereof to provide additional insulation from heat due to fires. Furthermore, the expansion of the intumescent material **1606** through the cutout **1638** may reduce the risk of damage to or breakage of the plumbing fitting **1630** within the outlet box housing **1602**.

(103) Turning again to FIG. **35**, the back plate **1608** together with the first, second, third, and forth flaps **1610**, **1614**, **1618**, **1622** define a cavity or chamber **1640** for receiving the outlet box housing **1602**. The intumescent support bracket **1604** may include perforated (e.g., pierced, punctured, holed, slotted, creased) regions **1642** (e.g., weakening line). When bending along the perforated regions **1642**, tabs **1644**, **1646**, **1648** or deformable portions can be respectively created on the first, second, and third flaps **1616**, **1618**, **1620**. That is, the tabs **1644**, **1646**, **1648** can be connected to the respective first, second, third flaps **1616**, **1618**, **1620** along the perforated regions **1642**. When assembling the outlet box assembly **1600**, the tabs **1644**, **1646**, **1648** can be bent or deformed along the perforated regions **1642** relative to the back plate **1608** to be parallel therewith for mounting. In addition, when in the assembled position for mounting, the tabs **1644**, **1646**, **1648** are generally perpendicular to the respective first, second, and third flaps **1616**, **1618**, **1620**. The tabs **1644**, **1646**, **1648** may be mounted to capture drywall when the outlet box assembly **1600** is inserted into the drywall.

(104) Referring to FIGS. **36-37**, the tabs **1644**, **1646**, **1648** of the intumescent support bracket **1604** can be received through respective slots **1650** defined in the outlet box housing **1602**. The tabs **1644**, **1646**, **1648** may also each include openings **1652** for mechanical attachment to the wall. That is, the openings **1652** of the tabs **1644**, **1646**, **1648** may align with openings in wall struts. A fastener can be received through the openings **1652** of the tabs **1644**, **1646**, **1648** and the wall struts to secure the tabs **1644**, **1646**, **1648** to the wall.
(105) The slots **1650** of the outlet box housing **1602** are configured to receive a plumbing bracket **1654**. When the plumbing bracket **1654** is mounted on the outlet box housing **1602**, the plumbing bracket **1654** is coplanar and adjacent to the intumescent support bracket **1604**. Thus, the intumescent support bracket **1604**, the plumbing bracket **1654** and the outlet box housing **1602** can be mechanically secured together.
(106) Each of the various implementations disclosed herein may have any of the aspects, features, components, and configurations of the other implementations, except where noted otherwise. For example, each of the various features, components, and aspects of the outlet box assemblies **100**, **700**, **900**, and **1500** can be integrated into any of the other implementations of the outlet box assemblies **100**, **700**, **900**, and **1500**.
(107) As utilized herein, the term “approximately” and similar terms are intended to have a broad meaning in harmony with the common and accepted usage by those of ordinary skill in the art to which the subject matter of this disclosure pertains. The term “approximately” as used herein refers to ±5% of the referenced measurement, position, or dimension. It should be understood by those of skill in the art who review this disclosure that these terms are intended to allow a description of certain features described and claimed without restricting the scope of these features to the precise numerical ranges provided. Accordingly, these terms should be interpreted as indicating that insubstantial or inconsequential modifications or alterations of the subject matter described and claimed are considered to be within the scope of the invention as recited in the appended claims.
(108) The terms “coupled,” “connected,” “attached,” and the like as used herein mean the joining of two members directly to one another. Such joining may be stationary (e.g., permanent) or moveable (e.g., removable or releasable).
(109) References herein to the positions of elements (e.g., “top,” “bottom,” “above,” “below,” etc.) are merely used to describe the orientation of various elements in the FIGURES. It should be noted that the orientation of various elements may differ according to other exemplary implementations, and that such variations are intended to be encompassed by the present disclosure.
(110) It is important to note that the construction and arrangement of the various exemplary implementations are illustrative only. Although only a few implementations have been described in detail in this disclosure, those skilled in the art who review this disclosure will readily appreciate that many modifications are possible (e.g., variations in sizes, dimensions, structures, shapes and proportions of the various elements, values of parameters, mounting arrangements, use of materials, colors, orientations, etc.) without materially departing from the novel teachings and advantages of the subject matter described herein. For example, the position of elements may be reversed or otherwise varied, and the nature or number of discrete elements or positions may be altered or varied. The order or sequence of any process or method steps may be varied or re-sequenced according to alternative implementations. Other substitutions, modifications, changes and omissions may also be made in the design, operating conditions and arrangement of the various exemplary implementations without departing from the scope of the present invention.

Claims

1. An intumescent fire wrap support bracket including a first side, a second side opposite the first side, a third side, and a fourth side opposite the third side, the intumescent fire wrap support bracket comprising: a back wall having an inner surface and an opposite outer surface; a first flap

bendable at the first side relative to the back wall; a second flap bendable at the second side relative to the back wall; a third flap bendable at the third side relative to the back wall; a fourth flap bendable at the fourth side relative to the back wall, wherein the third and fourth flaps each define a cutout therein; a first arm extending from the first flap and perpendicular relative to the back wall; and a second arm extending from the second flap and perpendicular relative to the back wall; wherein the first and second arms each have a distal end that includes at least two perforated sections for adjusting a length of the first and second arms for mounting within a wall.

2. The intumescent fire wrap support bracket of claim 1, further comprising an intumescent material positioned on the inner surface of the intumescent fire wrap support bracket.

3. The intumescent fire wrap support bracket of claim 2, wherein the back wall includes a plurality of slotted openings spaced in horizontally aligned rows.

4. The intumescent fire wrap support bracket of claim 3, wherein the back wall includes mounting tabs for securing the intumescent material thereon.

5. The intumescent fire wrap support bracket of claim 4, wherein the mounting tabs in the back wall are adjacent to the plurality of slotted openings.

6. The intumescent fire wrap support bracket of claim 1, wherein the first, second, third, and fourth flaps are each bendable along a respective perforated line.

7. A fire stop system for fire stopping an opening in a wall, comprising: an outlet box having an outlet box housing adapted for insertion into the opening; a support bracket having a first side, a second side opposite the first side, a third side, and a fourth side opposite the third side, the support bracket being attached to the outlet box housing, the support bracket including: a back wall having an inner surface and an opposite outer surface; a first flap bendable at the first side relative to the back wall; a second flap bendable at the second side relative to the back wall; a third flap bendable at the third side relative to the back wall; a fourth flap bendable at the fourth side relative to the back wall, wherein the third and fourth flaps each define a cutout therein; and an intumescent material positioned on the inner surface of the back wall of the support bracket; wherein the outlet box housing includes latch tabs and the support bracket includes latches that engage the latch tabs to attach the support bracket to the outlet box housing.

8. The fire stop system of claim 7, further comprising a first arm extending from the first flap, and a second arm extending from the second flap, the first and second arms extending perpendicularly relative to the back wall.

9. The first stop system of claim 7, wherein the first, second, third, and fourth flaps are each bendable along a respective perforated line.

10. The fire stop system of claim 7, wherein the back wall includes mounting tabs that extend outwardly from the back wall for securing the intumescent material thereon.

11. The fire stop system of claim 7, wherein the cutout in the third and fourth flaps is shaped and sized to receive a plumbing fitting when the support bracket is coupled to the outlet box housing.

12. The fire stop system of claim 7, wherein the back wall includes puncturing elements formed from the back wall for securing the intumescent material to the support bracket, the puncturing elements each extending outwardly along a single edge of an aperture respectively defined in the back wall.

13. An intumescent support bracket including a first side, a second side opposite the first side, a third side, and a fourth side opposite the third side, the intumescent support bracket comprising: a back plate defining a non-threaded window substantially centered thereon; a first flap bendable at the first side relative to the back plate; a second flap bendable at the second side relative to the back plate; a third flap bendable at the third side relative to the back plate; a fourth flap bendable at the fourth side relative to the back plate, wherein the third and fourth flaps each define a cutout therein; a first arm extending from the first flap and perpendicularly relative to the back wall; and a second arm extending from the second flap and perpendicularly relative to the back wall.

14. The intumescent support bracket of claim 13, further comprising an intumescent material

positioned on the back plate of the intumescent support bracket to cover the window.
15. The intumescent support bracket of claim 14, wherein the back plate includes intumescent locating tabs formed from the back plate for securing the intumescent material thereon, the intumescent locating tabs each extending outwardly along a single edge of the window defined in the back plate.
16. The intumescent support bracket of claim 14, wherein the back plate includes puncturing elements formed from the back plate for securing the intumescent material to the intumescent support bracket, the puncturing elements each extending outwardly along a single edge of the window defined in the back plate.
17. The intumescent support bracket of claim 14, wherein the window provides a relief path for the intumescent material during expansion resulting to exposure to heat.
18. The intumescent support bracket of claim 13, wherein a distal end of the first flap includes a first tab extending from the first flap and perpendicular thereto, and wherein a distal end of the second flap includes a second tab extending from the second flap and perpendicular thereto.
19. The intumescent support bracket of claim 18, wherein the first and second tabs each include perforated lines and are configured to surround drywall in a single fold configuration or a double fold configuration when mounted.
20. The intumescent support bracket of claim 13, wherein the intumescent support bracket includes perforated slots to form weakened portions around an outer periphery of the intumescent support bracket at the first, second, third, and fourth sides.
21. The intumescent support bracket of claim 13, wherein the cutout in the third flap is shaped and sized to receive a plumbing fitting.
22. A firestopping outlet box assembly, comprising: an outlet box housing adapted for insertion into an opening in a wall; a support bracket having a plurality of sides adapted to be positioned at least partially over an outer surface of the outlet box housing, and having a plurality of bendable flaps adapted to facilitate securement of the support bracket in relation to the outlet box housing, wherein at least two of the plurality of bendable flaps each define a cutout therein; and an intumescent material positioned between the outlet box housing and the support bracket; wherein the outlet box housing includes latch tabs and at least two of the plurality of bendable flaps include arms with latches that engage the latch tabs of the outlet box housing for attaching the support bracket to the outlet box housing.
23. The firestopping outlet box assembly of claim 22, wherein the support bracket includes puncturing elements extending outwardly from a back plate of the support bracket for securing the intumescent material, the puncturing elements each extending along a single edge of an aperture respectively defined in the support bracket.
24. An intumescent fire wrap support bracket including a first side, a second side opposite the first side, a third side, and a fourth side opposite the third side, the intumescent fire wrap support bracket comprising: a back wall having an inner surface and an opposite outer surface; a first flap bendable at the first side relative to the back wall; a second flap bendable at the second side relative to the back wall; a third flap bendable at the third side relative to the back wall; a fourth flap bendable at the fourth side relative to the back wall, wherein the third and fourth flaps each define a cutout therein; a first arm extending from the first flap and perpendicular relative to the back wall; and a second arm extending from the second flap and perpendicular relative to the back wall; wherein the back wall includes a plurality of slotted openings spaced in horizontally aligned rows.
25. A firestopping outlet box assembly, comprising: an outlet box housing adapted for insertion into an opening in a wall; a support bracket having a plurality of sides adapted to be positioned at least partially over an outer surface of the outlet box housing, and having a plurality of bendable flaps adapted to facilitate securement of the support bracket in relation to the outlet box housing, wherein at least two of the plurality of bendable flaps each define a cutout therein; and an intumescent material positioned between the outlet box housing and the support bracket; wherein the support

bracket includes puncturing elements extending outwardly from a back plate of the support bracket for securing the intumescent material, the puncturing elements each extending along a single edge of an aperture respectively defined in the support bracket.

26. A fire stop system for fire stopping an opening in a wall, comprising: an outlet box having an outlet box housing adapted for insertion into the opening; a support bracket having a first side, a second side opposite the first side, a third side, and a fourth side opposite the third side, the support bracket being attached to the outlet box housing, the support bracket including: a back wall having an inner surface and an opposite outer surface; a first flap bendable at the first side relative to the back wall; a second flap bendable at the second side relative to the back wall; a third flap bendable at the third side relative to the back wall; a fourth flap bendable at the fourth side relative to the back wall, wherein the third and fourth flaps each define a cutout therein; and an intumescent material positioned on the inner surface of the back wall of the support bracket; wherein the back wall includes puncturing elements formed from the back wall for securing the intumescent material to the support bracket, the puncturing elements each extending outwardly along a single edge of an aperture respectively defined in the back wall.