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(54) **TOUCH FASTENER PRODUCTS**

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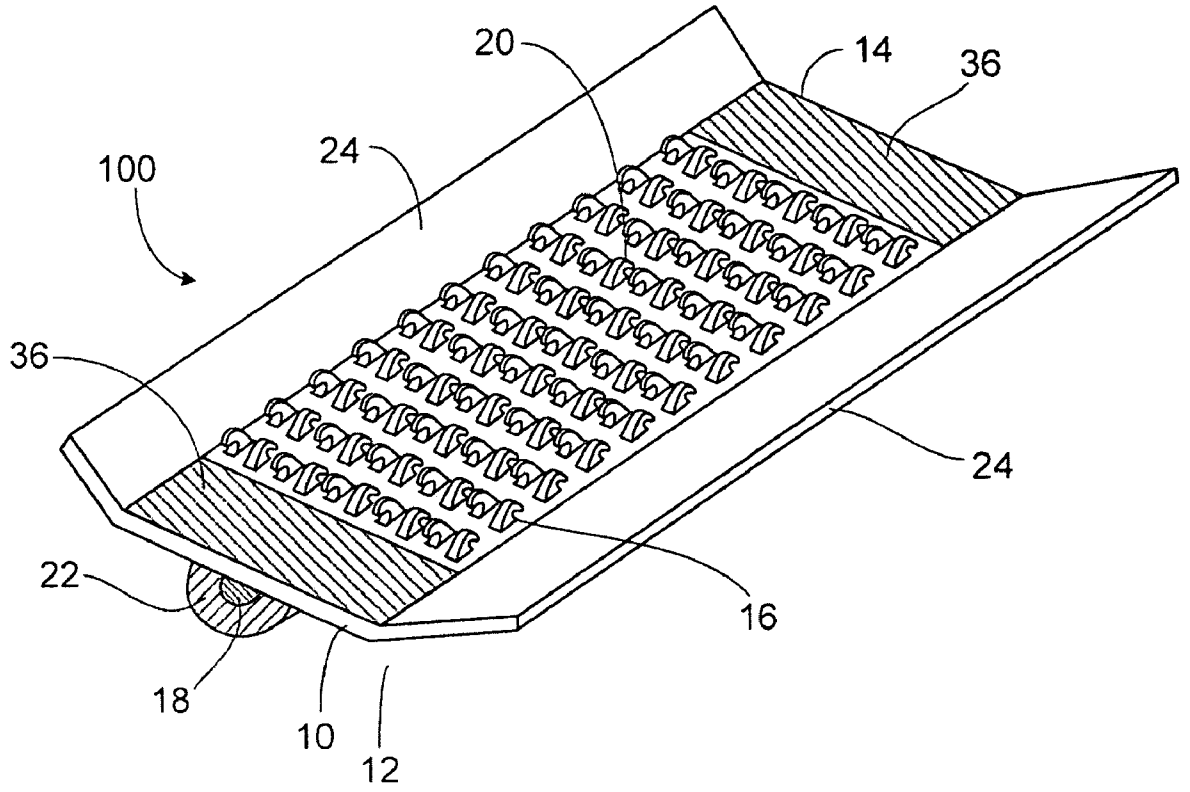
(57) **ABSTRACT**

Touch fasteners for use as mold inserts in molding seat foam buns include a strip-form base a magnetically attractable material disposed on the strip-form base; and film selvedges biased to depend downward from the strip-form base toward the fastening side, such that they will be deflected away from the fastening side as the fastener is pressed into an associated trench.



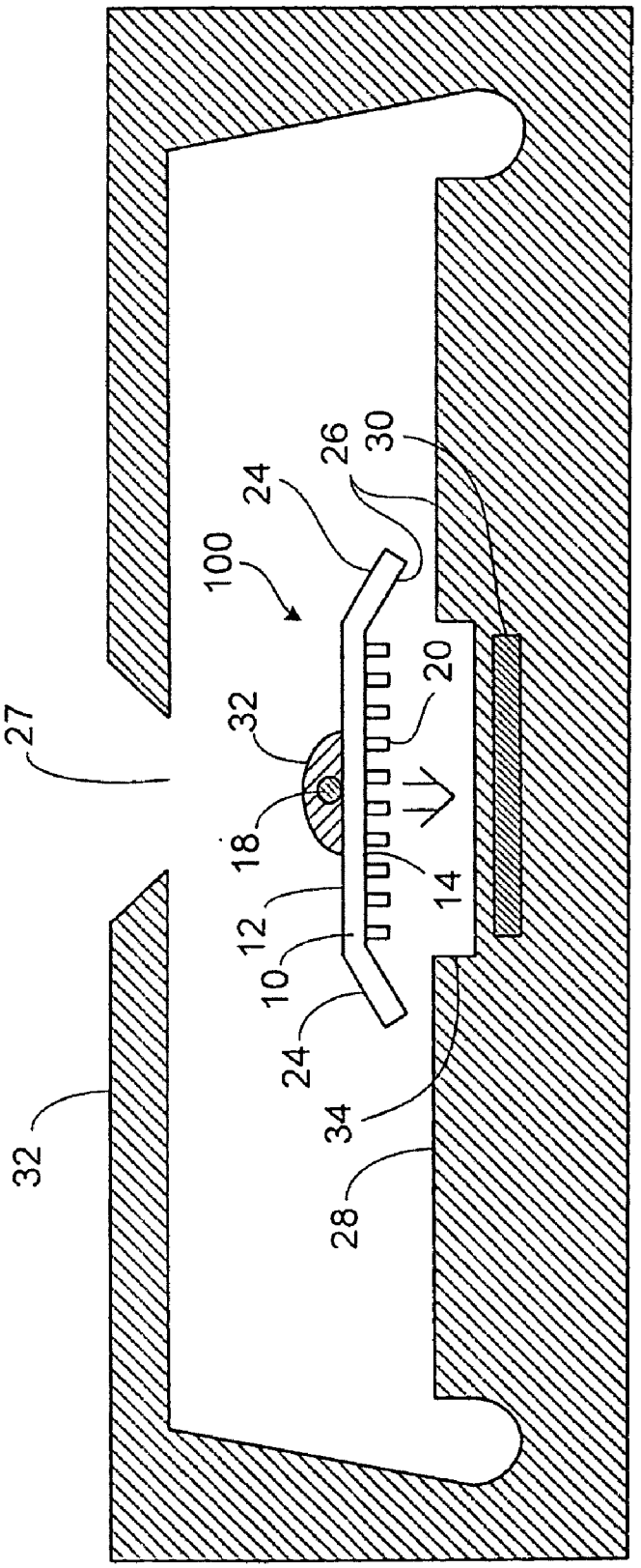


FIG. 1

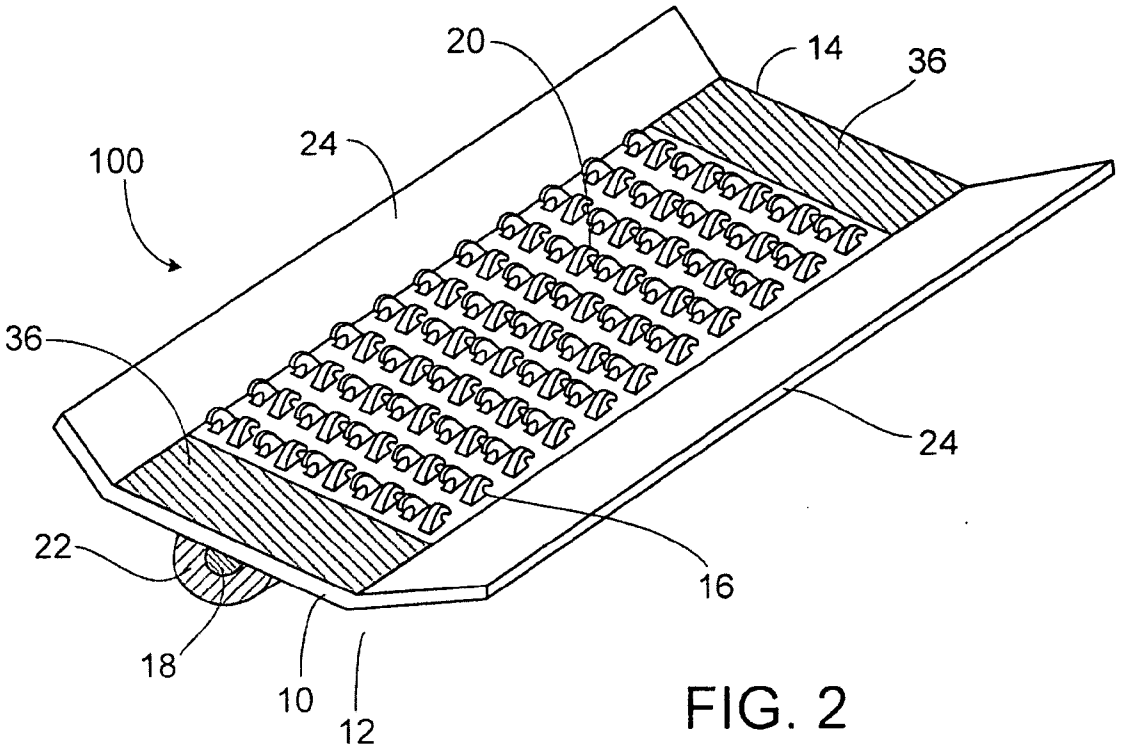


FIG. 2

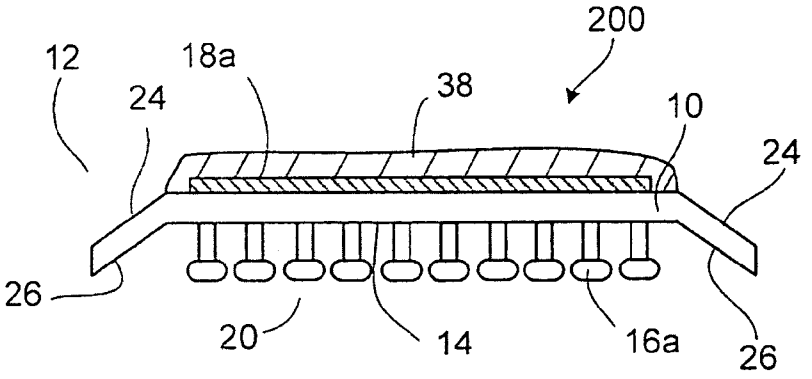


FIG. 3

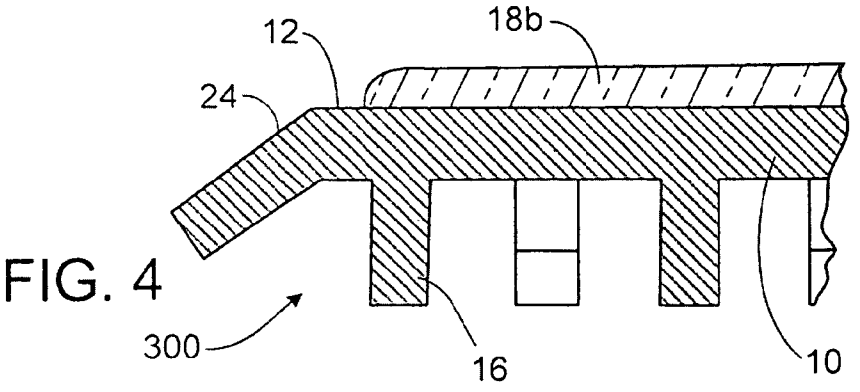


FIG. 4

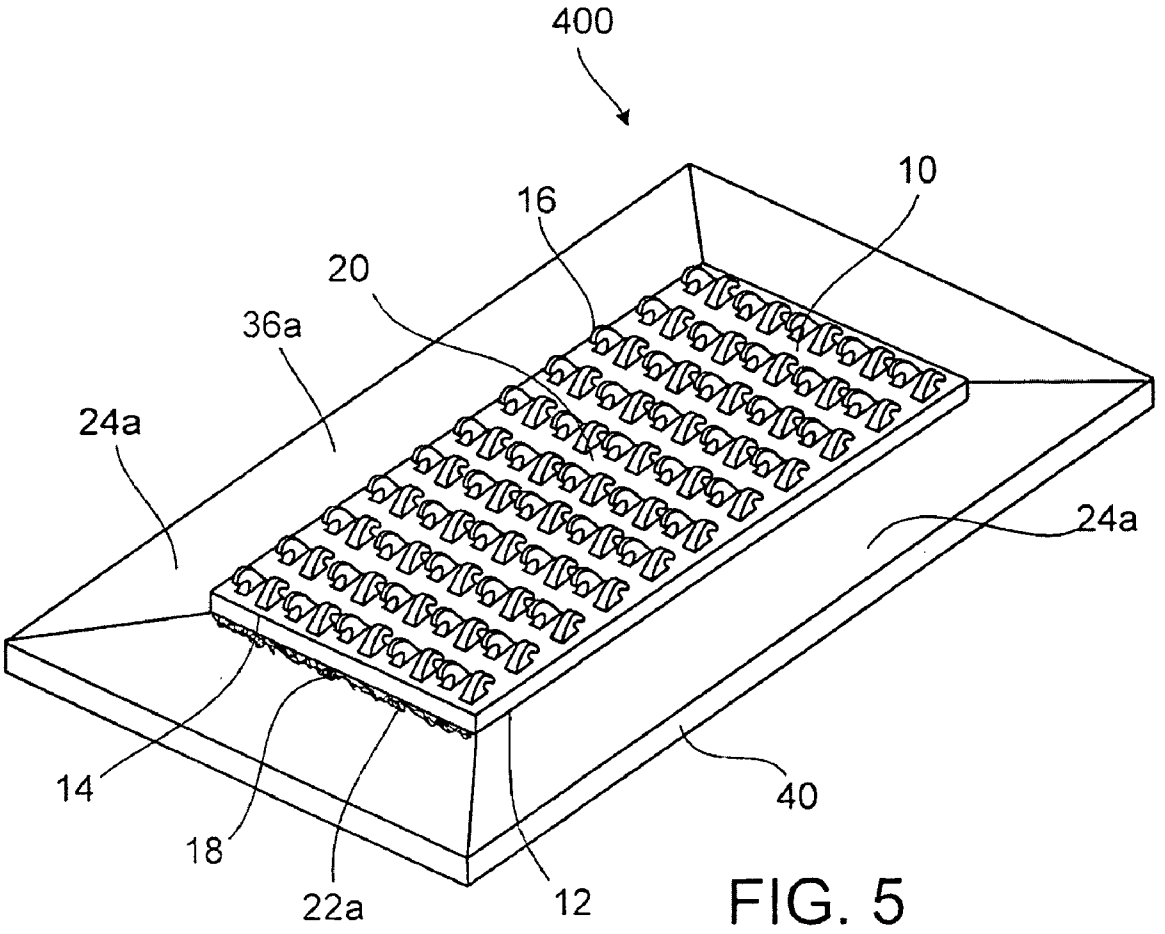


FIG. 5

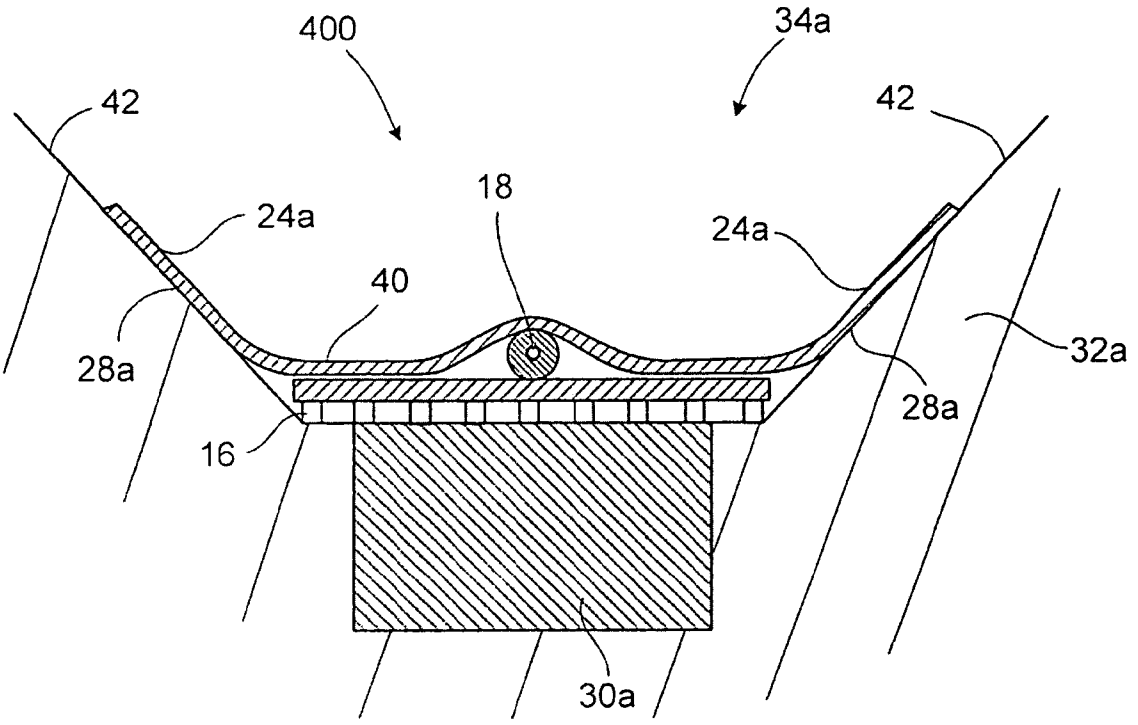


FIG. 6

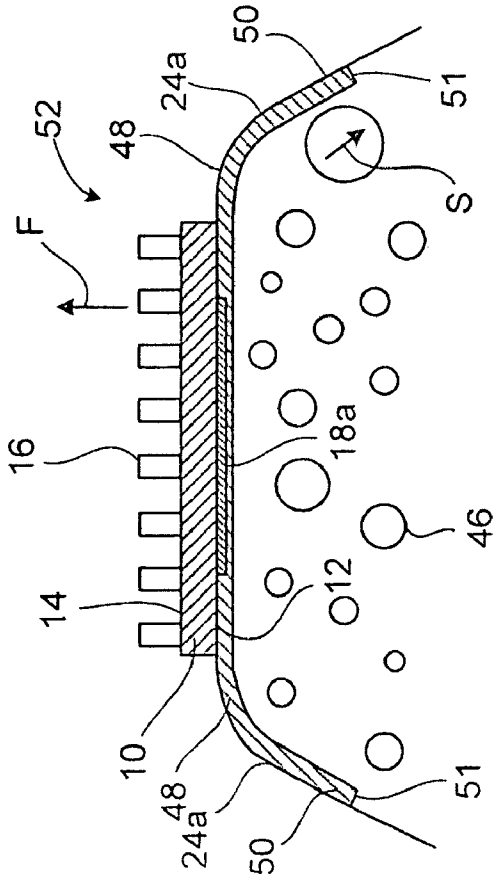

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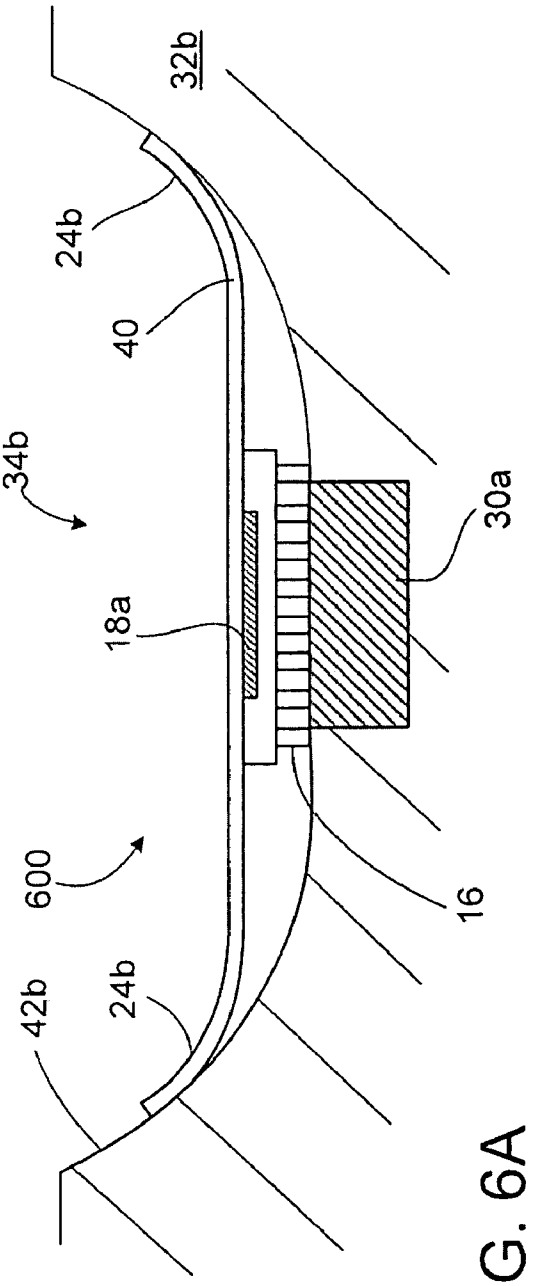
FIG. 8


32b
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34b
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42b
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FIG. 6A

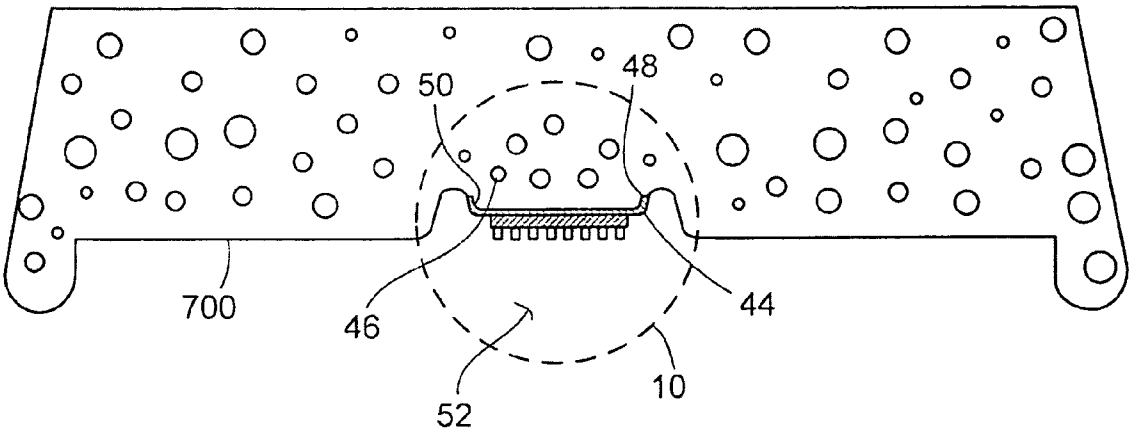

FIG. 7

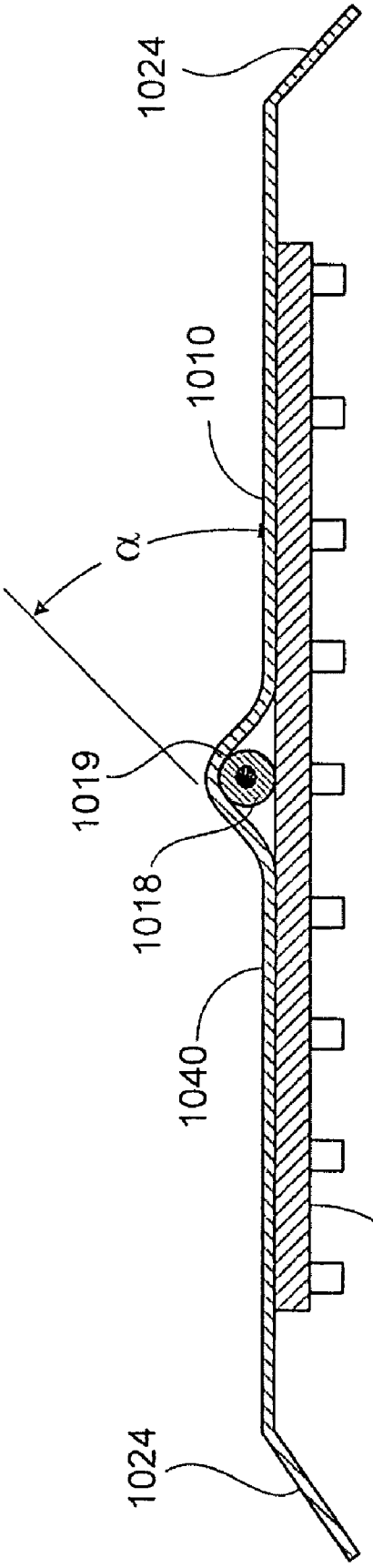

FIG. 9

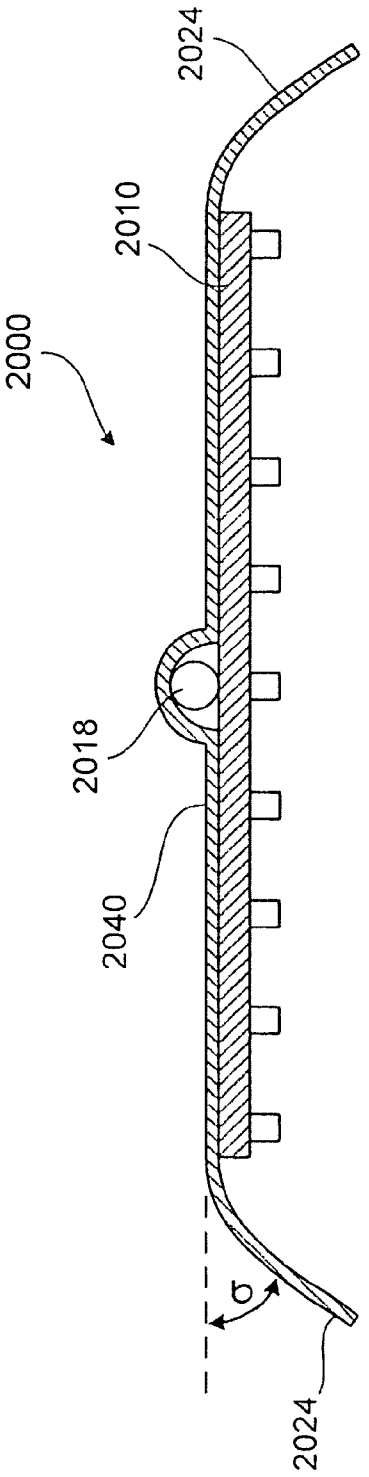

FIG. 10A

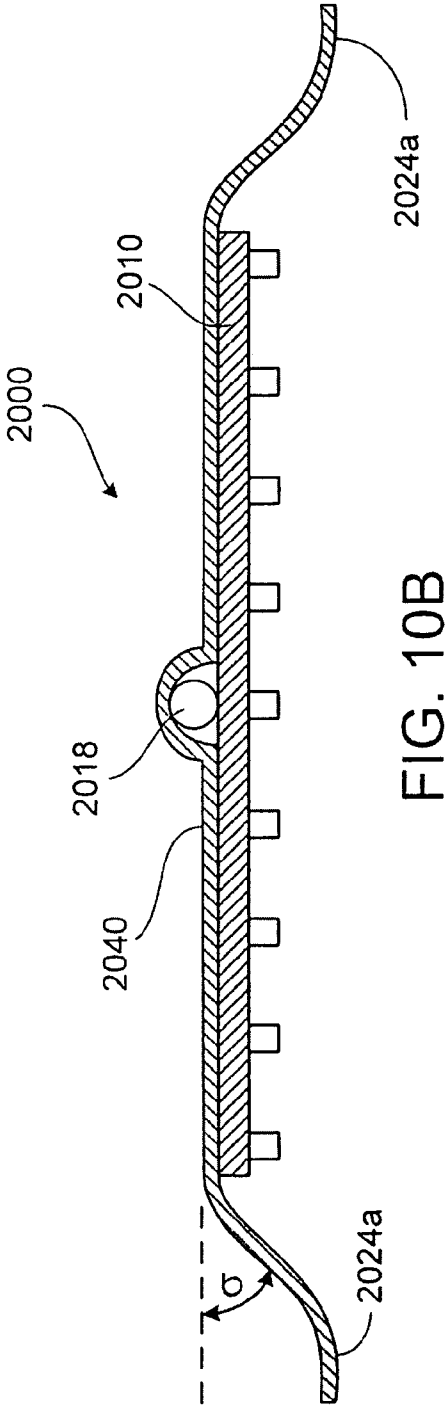

FIG. 10B

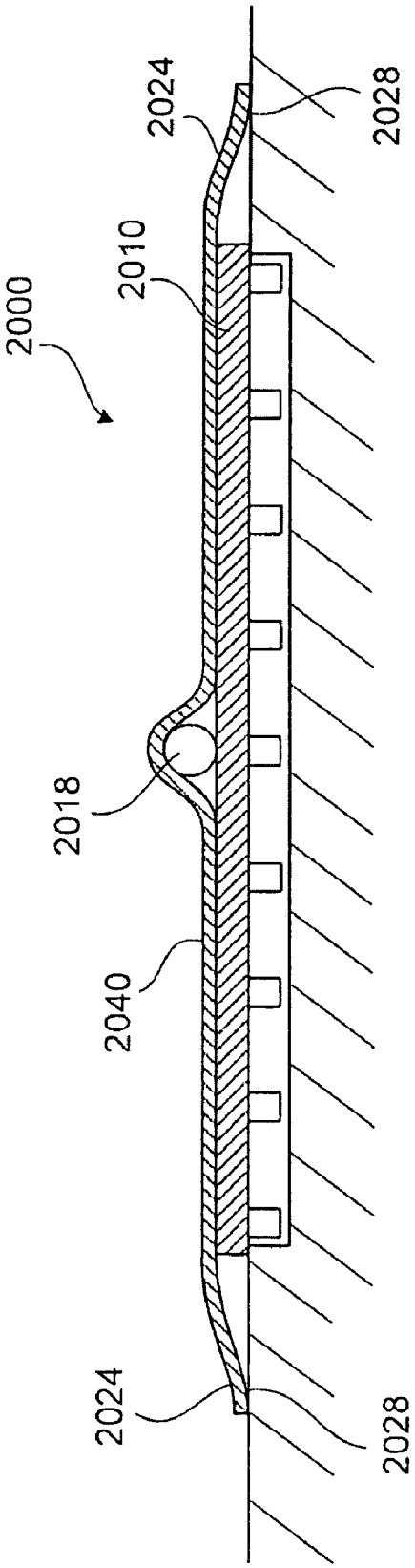

FIG. 10C

TOUCH FASTENER PRODUCTS

TECHNICAL FIELD

[0001] This invention relates to touch fastener products, and particularly to the use of touch fastener products as mold inserts, such as in the molding of seat foam bulls and the like.

BACKGROUND

[0002] Seats for cars and light trucks have been formed by molding a foam bun that will serve as the seat cushion, and then attaching a pre-stitched fabric cover to the foam bun. Often, the fabric cover is attached to the foam bun by insert molding touch fastener products into the outer surface of the foam bun and attaching cooperating touch fastener products to an inner surface of the fabric cover. Generally, the fastener products are attached to the fabric cover along the seams where the cover is stitched together and held in place by the seam stitching. The touch fastener products allow the seat manufacturer to rapidly and semi-permanently attach the fabric cover to the foam bun by pulling the fabric cover over the foam bun and pressing the opposed touch fastener products on the foam bun and fabric cover together. The fastener product is often located within recesses in the foam bun to enable fitted attachment of covers over the bun portion between the recesses.

[0003] In general, the touch fastener products can be secured to the seat foam bun during a molding process, such as by holding the fastener products magnetically against a portion of the mold cavity in which the foam bun is molded. During this molding process, care must be taken to avoid fouling of the fastener elements with the liquid foamable composition used to form the seat. Fouling can occur if the liquid foaming composition leaks between the edges of the base of the touch fastener product and the mold surface into the space between the fastener elements (e.g., hooks).

[0004] One previous solution provided by Applicants featured a touch fastener product having lateral selvedges coplanar with the fastener base to contact a flat upper mold surface. A magnetically attractable material on the base served to retain the selvedges in sealing contact with the mold surface to prevent fouling of the fastener elements during the foam molding process. This arrangement is further described in U.S. Application Ser. No. 11/873,124 filed Oct. 17, 2007 and U.S. Provisional Application Ser. No. 60/829,822 filed Oct. 17, 2006, both of which are incorporated herein in their entirety.

SUMMARY

[0005] In one aspect of the invention, a touch fastener for use as mold inserts in molding seat foam buns includes a strip-form base, a magnetically attractable material disposed on the strip-form base; and a film selvedge that is biased to depend downward from the strip-form base toward the fastening side, such that it will be deflected away from the fastening side as the fastener is pressed into position against a mold surface.

[0006] In some cases, the touch fastener is positioned in an associated mold trench. The trench is a groove in a mold surface for accommodating part or all of the touch fastener during the molding process. The selvedges can contact a mold surface adjacent the trench or a mold surface defining the trench, such as a trench sidewall.

[0007] In some implementations, the selvedges deflect upon contact with a flat mold surface adjacent the mold trench into which the fastening side of the strip form base is received. Upon removal of a corresponding molded product from the mold, the fastening side of the strip form base protrudes beyond the portion of the molded product corresponding to the surface adjacent to the mold trench.

[0008] In some implementations, the selvedges deflect into face-to-face contact with sidewalls of the trench into which the touch fastener is placed and magnetically retained. Upon removal of the corresponding molded product from the mold, the fastening side of the strip form base resides on top of a plateau corresponding to the bottom of the mold trench and including plateau side walls that correspond to the sidewalls of the mold trench. The selvedges can be deflected to conform to the trench sidewalls so as to become part of the plateau sidewalls.

[0009] In a particular implementation, the mold includes raised pedestals that correspond to recesses to be formed in the molded foam product and the top surface of the pedestals includes the trench into which the touch fastener is placed.

[0010] In another aspect, the invention features a touch fastener for use as a mold insert, the touch fastener having a strip-form base comprising an first face and a second opposing face, a plurality of fastener elements disposed in an array on the second face of the strip-form base, a magnetically attractable material attached to the strip-form base; and a flexible backing secured to the first face of the base and extending beyond the lateral edges to form selvedges; and wherein the backing is shaped such that the selvedges extend, in an unloaded state and in the direction of the fastener elements, beyond the second face of the strip-form base.

[0011] The selvedges are deflectable into face-to-face contact with the mold surface upon placement of the touch fastener in the mold trench.

[0012] The selvedges are deflectable upwards towards the first face between about 10 and 160 degrees when placed in sealing engagement with a mold surface.

[0013] In some embodiments the unloaded selvedges depend away from the base at an angle θ between about 20 and 70 degrees.

[0014] In some embodiments the unloaded selvedges depend away from the base at an angle θ between about 25 and 35 degrees.

[0015] In some cases, the unloaded selvedges extend away from the base in a curve in the unloaded state.

[0016] In some embodiments, the selvedges comprise a film secured to the strip-form base.

[0017] In some embodiments, the selvedges include a region of reduced stiffness to localize deflection of the selvedges.

[0018] In some embodiments, the selvedges deflect to lay in face-to-face contact with a mold surface.

[0019] In some embodiments, the selvedges comprise a film less than about 0.010 inch (0.254 mm) thick.

[0020] In some embodiments, the selvedges are a woven or a non-woven fabric.

[0021] In some embodiments, the selvedges are integrally molded with the base.

[0022] In some embodiments, the strip-form base includes a peripheral portion that is free of fastener elements for forming a primary sealing interface with the mold and the selvedges extend beyond the base to form a secondary sealing interface with the mold.

[0023] In some embodiments, the mold surface is flat and the selvedges deflect upward to a mold contact position substantially parallel to the strip-form base.

[0024] In some embodiments, the selvedges are formed from a film attached to the first face of the sheet form base and covering the magnetically attractable material.

[0025] In some embodiments, the mold surface is flat and the selvedges deflect from a downward angle to a substantially flat face-to-face contact position against the mold surface. In other embodiments, the mold surface is curved upwards and the selvedges deflect from a downward angle to an upward face-to-face contact position.

[0026] In some embodiments, the selvedges extend laterally downward beyond the array of fastener elements and are configured to engage a flat, angled or curved mold surface and deflect into face-to-face contact with the mold surface.

[0027] In some embodiments, the central portion of the base includes a peripheral portion that is free of fastener elements for forming a primary sealing interface with the mold. The selvedges extend beyond the base to form a secondary sealing interface with the mold.

[0028] In other embodiments, the selvedges are the entire sealing interface between the fastener product and the mold.

[0029] The selvedges are formed to deflect upon insertion into the mold to form a sealing interface.

[0030] The selvedges are bent or curved downward, i.e. towards the mold, between the central portion of the base and the outward edge of the selvedges.

[0031] In some applications, the selvedges are formed by bending or curling the film. The film can be heated to set the film in the formed shape. The selvedges can be bent or curled before or after attachment to the base.

[0032] In some embodiments, the selvedges are outwardly tapered in thickness to provide a more pliable outward edge.

[0033] In some embodiments, the selvedges include an area of reduced thickness or reduced stiffness to localize deflection of the selvedges.

[0034] In some embodiments, the selvedges maintain a seal between the fastener product and the mold over a range of product-mold engagement. In some cases, the fastener product can be partially misaligned or dislodged with the selvedges still in contact with the mold surface.

[0035] In some embodiments, the selvedges are formed from a continuous film attached to the base.

[0036] In some embodiments, the selvedges are independent strips of film attached to the base.

[0037] In some embodiments, the selvedges are attached to the second face of the base.

[0038] In some embodiments, the selvedges are molded integrally with the base.

[0039] In some embodiments, the touch fastener is formed of a single contiguous resin.

[0040] In some embodiments, the central portion includes a strip of a first material supporting the fastener elements, and the selvedges are formed of a second material of different composition than the first material. For example, the strip of first material can have a surface integrally formed with stems of the fastener elements, or the selvedges can include regions of a film secured to the first face of the base. The film can be secured by an adhesive such as a polyamide hot melt. The film can have one or more of the following properties: the film can be a polyamide film, the film can have a softening point of between about 120 and 220 degrees Fahrenheit (48.88 and 104.44 degrees Celsius), the film can have a nominal thickness of less than about 0.020 inch (0.508 mm), for example about 0.010 inches (0.254 mm) or less, or about 0.005 inches (0.127 mm) or less, and the film can have a flexural rigidity of between about 1500 and 2000 mg-cm, e.g., about 1800 mg-cm.

[0041] In some embodiments, the nominal thickness of the central portion of the base is between about 0.002 inch (0.051 mm) and 0.012 inch (0.305 mm).

[0042] In some embodiments, the nominal thickness of the central portion of the base is greater than a nominal thickness of the selvedges.

[0043] In some embodiments, the magnetically attractable material includes a metal wire, a metal strip or a coating of magnetically attractable particles.

[0044] In some embodiments, the magnetically attractable material is secured to the first face of the base and is covered by a film.

[0045] In some embodiments, the magnetically attractable material is disposed in a strip extending substantially an entire length of the touch fastener and substantially centered in a width of the touch fastener.

[0046] In some embodiments, the magnetically attractable material is a frangible composite material.

[0047] In some embodiments, the magnetically attractable material is disposed on or secured to the second face of the base between rows of fastener elements. The magnetically attractable material can be adhered to the base and the stems of the fastener elements. In some embodiments, the magnetically attractable material is sized to press fit between rows of the fastener elements.

[0048] In some embodiments, the magnetically attractable material is at least partially embedded into the base during molding of the base and fastener elements.

[0049] In some embodiments, the magnetically attractable material is deposited on the base as a flowable bead.

[0050] In some embodiments, the magnetically attractable material is a composite strand of resin and magnetically attractable particles. In some embodiments, the composite is formed around a core, such as, thread, string, wire or other filament. In some embodiments the magnetically attractable particles are embedded in the resin strand and in other embodiments, the magnetically attractable particles are coated onto the resin strand.

[0051] In some embodiments, the composite strand is constructed and arranged so as to be frangible during recycling of the seat bun. In a preferred embodiment, the frangible composite strand is constructed and arranged with sections of reduced cross-section so as to be readily rent or sectioned with the seat bun during recycling.

[0052] In some embodiments, the magnetically attractable material is encapsulated in a hot melt adhesive.

[0053] In some embodiments, each selvedge extends from the array at least about 2 mm, for example each selvedge extends from the array at least about 4 mm.

[0054] In some embodiments, the selvedges are of a material having a flexural rigidity of between about 1000 and 3000 mg-cm, e.g., about 1500 and 2000 mg-cm, preferably about 1800 mg-cm.

[0055] In some embodiments, selvedges are disposed on all sides of the central portion of the base.

[0056] In some embodiments, the central portion of the base includes a molded resin.

[0057] In some embodiments, the fastener elements are male fastener elements. In some cases, the male fastener

elements include stems integrally molded with the central portion of the base, the central portion of the base including a molded resin. In some cases, the male fastener elements have loop-engagable heads molded at distal ends of the stems. In some cases, the male fastener elements are hook-shaped.

[0058] In some embodiments, the fastener elements are arranged in a density of at least about 100 per square inch (per 645 square mm) across the array.

[0059] In some embodiments, the fastener elements have an overall height, as measured normal to the base, of less than about 0.050 inch (1.27 mm).

[0060] In another aspect, the invention features a method of forming a seat foam bun. The method includes providing a mold cavity having a shape corresponding to the shape of the seat foam bun, wherein the mold cavity includes a trench having side walls, providing a touch fastener including a base, a plurality of fastener elements extending from a second face of a central portion of the base in an array disposed between lateral selvedges of the base, positioning the touch fastener along the trench with the selvedges deflected from their unloaded downward position to extend along the trench side walls in face-to-face contact with a mold surface, and delivering a foamable resin into the mold cavity to form a seat foam bun, the deflected selvedges resisting intrusion of foamable resin into the array of fastener elements.

[0061] In some applications, the trench has angled sidewalls and the selvedges deflect into face-to-face contact with the sidewalls.

[0062] In some applications, a lower face of the selvedges has a substantially flat surface.

[0063] In some applications, the selvedges are biased downward between an angle θ of between about 10 and 80 degrees from the plane of the base.

[0064] In some cases, the selvedges are biased downward between an angle θ of between about 25 and 35 degrees from the plane of the base.

[0065] In some applications, the selvedges include substantially arcuate surfaces.

[0066] In some applications, the selvedges extend below the fastener elements prior to placement of the fastener strip onto the mold and deflect upward above the fastener elements upon placement of the fastener strip onto the mold.

[0067] In some cases, the selvedges are of a significantly lesser stiffness than a stiffness of the central portion of the base.

[0068] In some cases, the trench has flat side walls extending at angles from a bottom surface of the trench.

[0069] In some applications, the trench has curved side walls, the selvedges conforming to arcuate surfaces of the trench side walls.

[0070] In some applications, in an unloaded condition, the selvedges and central portion of the base lie in a common plane, the distal edges of the selvedges deflected out of the common plane with the fastener positioned along the trench.

[0071] In some applications, the selvedges extend below the plane of the central portion of the base in an unloaded condition and deflect in a loaded condition above the plane of the base with the fastener positioned along the trench.

[0072] In some applications, the distal edges of the selvedges contact the trench side walls with the fastener positioned along the trench.

[0073] In some applications, the selvedges are disposed around all sides of the central portion of the base.

[0074] In some cases, the central portion of the base has a nominal thickness of between about 0.002 (0.051 mm) and 0.012 inch (0.305 mm).

[0075] In some cases, the central portion of the base is thicker than the selvedges.

[0076] In some applications, the touch fastener includes a magnetically attractable material. In some cases, the magnetically attractable material is disposed on the first face of the central portion of the base. In some cases, the selvedges are substantially free of magnetically attractable material. In some instances, the trench overlays a magnet.

[0077] In some applications, the trench is elongated, and the fastener product is in strip form. In some cases, the trench is in a circular plateau and the fastener product is in circular form.

[0078] In some applications, the fastener elements are male fastener elements having stems integrally molded with a surface of the central portion of the base.

[0079] In some applications, the foamable resin comprises a polyurethane resin.

[0080] Another aspect of the invention features a seat foam bun including a foam bun having a plateau; and positioned onto the foam bun, a touch fastener including a strip-form base having a first face and a second opposing face; a plurality of fastener elements disposed in an array on the second face of the strip-form base; a magnetically attractable material secured to the strip-form base; and flexible lateral selvedges extending beyond the strip-form base and deflected upwards between about 10 and 160 degrees from an unloaded downwardly biased angle θ of between 10 and 80 degrees relative to the plane of the strip-form base.

[0081] In some embodiments, the selvedges are deflected upwards between about 15-30 degrees from an unloaded downwardly biased angle θ of between 25 and 35 degrees relative to the plane of the strip-form base.

[0082] In some embodiments, the plateau is an elongated plateau. In some embodiments, the plateau is a circular plateau. In some cases the touch fastener is positioned on the plateau.

[0083] In some cases, the touch fastener is positioned in a recess adjacent to the plateau.

[0084] In some embodiments, the selvedges have a stiffness that is substantially less than a stiffness of the central portion of the base.

[0085] In some embodiments, the central portion of the base includes a resin.

[0086] In some embodiments, the selvedges include a film.

[0087] In some cases, the film is adhered to the central portion of the base.

[0088] In some cases, the central portion of the base is thicker than the selvedges.

[0089] In some cases, the selvedges extend laterally beyond the central portion at least about 2 mm.

[0090] In some embodiments, the touch fastener includes a magnetically attractable material.

[0091] In some embodiments, a magnetically attractable material is disposed on the central portion of the base.

[0092] In some cases, an exposed surface of the selvedges is substantially smooth.

[0093] In some embodiments, the foam is a polyurethane foam.

[0094] Another aspect of the invention features a method of forming a seat foam bun. The method includes providing a mold cavity having a shape corresponding to a desired shape

of the foam bun; positioning a touch fastener in the mold cavity, the touch fastener including a strip-form base comprising a first face and an opposing second face; a plurality of fastener elements disposed in an array on the second face of the strip-form base; a magnetically attractable material attached to the strip-form base; flexible lateral selvedges extending beyond the strip-form base and biased downward between 10 and 80 degrees from the plane of the strip-form base; and delivering a foamable resin into the mold cavity to form a seat foam bun, the resin flowing across the selvedges of the touch fastener.

[0095] In some applications, the method includes deflecting the selvedges upwards between about 10 and 160 degrees into face-to-face contact with a mold surface.

[0096] In some cases, the method includes deflecting the selvedges upwards between about 15 and 30 degrees into face-to-face contact with a mold surface from an unloaded downward angle of between 25 and 35 degrees.

[0097] In some applications, the touch fastener further comprises a material disposed on the second face of the base, the material surrounding the plurality of fastener elements and forming a gasket between the base and a surface of the mold cavity.

[0098] In some cases, the selvedges depend downward from the plane of the strip-form base between 30 and 60 degrees.

[0099] In some case, the selvedges depend downward in a curve.

[0100] In some cases, the selvedges include a region of reduced stiffness to localize deflection of the selvedges.

[0101] In some cases, the mold surface is flat and the selvedges deflect upward to a mold contact position substantially parallel to the strip-form base.

[0102] In some cases, the foamable resin includes a polyurethane.

[0103] In some cases, the activatable resin comprises a film, for example a polyamide film.

[0104] In some applications, the resin is disposed over substantially the entire first face of the base.

[0105] In some applications, the touch fastener includes a magnetically attractable material disposed on the first face of the base.

[0106] In some cases, the magnetically attractable material is a metal wire laterally centered over the fastener elements.

[0107] In some applications, the touch fastener includes a material disposed on the second face of the base, the material surrounding the plurality of fastener elements and forming a gasket between the base and a surface of the mold cavity.

[0108] In some applications, the touch fastener includes selvedges extending laterally beyond the plurality of fastener elements.

[0109] In some cases, the selvedges extend longitudinally beyond the plurality of fastener elements.

[0110] In some cases, the selvedges are integrally molded with the base.

[0111] In some cases, the selvedges include a film disposed on the first surface of the base.

[0112] In some cases the selvedges are independent film strips disposed on the base.

[0113] In some applications, the selvedges extend downward from the base toward the mold and deflect into face-to-face contact with the mold surface. The selvedges can depend away from the first face in an acute angled or in a curve.

[0114] In some applications, the selvedges include a smooth surface that engages a mold surface in face-to-face contact.

[0115] In another aspect, the invention features a method of forming a seat foam bun, including the following steps: providing a mold cavity having a shape corresponding to a desired shape of the foam bun and defining a trench overlying a magnet, providing a touch fastener mold insert, the insert including a strip-form base including a first face and a second opposing face, a plurality of fastener elements extending from the second face of the strip-form base disposed in an array; and a magnetically attractable material secured to the strip-form base, a portion of the strip-form base extending laterally beyond the array of male fastener elements and forming downwardly depending selvedges on opposite edges of the strip-form base, the selvedges being upwardly deflectable from a downward position, positioning the insert in the trench to establish a magnetic attraction between the attractable material and the magnet, thereby creating area contact pressure between the lower faces of the selvedges and mold surfaces on either side of the trench to form a seal; and delivering a foamable resin into the mold cavity to form a seat bun.

[0116] In some applications, the fastener elements are male fastener elements having stems integrally molded to the second face of the strip-form base.

[0117] In some cases, the foam is a polyurethane foam.

[0118] In some cases, the magnetically attractable material is encapsulated in a polyamide hot melt composition.

[0119] In some cases, the magnetically attractable material includes a metal wire.

[0120] In some applications, the magnetically attractable material extends over substantially the entire length of the touch fastener and is substantially centered over a width of the touch fastener.

[0121] In some cases, the magnetically attractable material includes a coating of metal particles.

[0122] In some cases, the coating of metal particles is substantially centered over a width of the touch fastener.

[0123] In some applications, each selvedge extends from the array at least about 2 mm, for example, each selvedge can extend from the array at least about 4 mm.

[0124] In some applications, the selvedges extend downward toward the mold in an unloaded states and are deflected upward and outward into face-to-face contact with the mold surface.

[0125] In some cases, the selvedges are deflected upward between about 15 and 20 degrees from a downward angle θ of between about 25 and 35 degrees.

[0126] In some cases, the width of the array of fastener elements is between about 2 mm and 10 mm.

[0127] In some cases, the length of the touch fastener is at least about 200 mm.

[0128] In some embodiments, strip-form base is between about 0.002 (0.051 mm) and 0.012 inch (0.305 mm) thick.

[0129] In some cases, the touch fastener includes a material disposed on the first face of the strip-form base. In some cases, the material is a woven material.

[0130] In some embodiments, the male fastener elements include molded hooks or mushroom shapes.

[0131] The touch fasteners described herein can be used in a molding process, for example, to form a seat foam bun.

[0132] Seat foam buns including a touch fastener are also described.

[0133] The term "stiffness" as used herein refers to the resistance of a strip-form material to bend out of its plane when subjected to a normal bending force, and is synonymous with flexural rigidity.

[0134] At least some of the touch fasteners described herein can be used in molding processes without requiring a gasket to protect the fastener elements from being fouled with foam used to form a the touch fastener (for example to form a gasket), thus reducing manufacturing costs. This can eliminate an additional manufacturing step of securing a separate material.

[0135] In some aspects, the touch fastener products, when used in a molding process, can reduce the hindrance of the flow of foamable resin during the forming of a seat foam bun. For example, by having selvedges that lie flat in face-to-face contact with a mold surface, the selvedges create only a minor ridge. Accordingly, the foamable resin can pass over the touch fastener without creating a significant disturbance in the flow of the resin (for example, as can occur when the advancing foamable resin meets an impediment), which can result in undesirable variations in foam density.

[0136] By molding a touch fastener into a recessed portion or a plateau portion of a seat foam bun, with selvedges of the fastener extending up the sides of the recess or over the edges of the plateau, the touch fastener can have improved adhesion to the seat foam bun and be more resistant to tearing. The improved adhesion can result from conversion of at least some normal fastener separation load into a shear force between the angled selvedges and the foam.

[0137] In instances where the selvedges are formed of a material more flexible than the central portion of the touch fastener, the stress at the edges of the touch fasteners may be reduced. For example, in some instances the selvedges can bend more easily to maintain contact with the surface of the seat foam bun in instances where the seat foam bun is subjected to a compressing stress.

[0138] The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

[0139] FIG. **1** is a cross-sectional view of a touch fastener being positioned in a mold cavity.

[0140] FIG. **2** is a perspective view of a touch fastener having selvedges.

[0141] FIG. **3** is a cross-sectional view of a touch fastener having a material adhered thereto.

[0142] FIG. **4** is a cross-sectional view of a touch fastener having a coating of magnetically attractable material secured thereto.

[0143] FIG. **5** is a perspective view of a touch fastener having selvedges of a film material.

[0144] FIG. **6** is a cross-sectional view of the touch fastener of FIG. **5** positioned in a trench of a mold cavity.

[0145] FIG. **6**A is a cross-sectional view of another touch fastener positioned in a tapered trench.

[0146] FIG. **7** is a cross-sectional view of a seat foam bun, and FIG. **8** is an enlarged view of area **10** of FIG. **7**.

[0147] FIG. **9** shows a cross-sectional view of the touch fastener configured with a magnetically attractive material.

[0148] FIG. **10**A is a cross-sectional view of a touch fastener having lateral selvedges extending downward from the strip-form base.

[0149] FIG. **10**B is a cross-sectional view of a touch fastener having lateral selvedges extending downward in a curve from the strip-form base.

[0150] FIG. **10**C is a cross-sectional view of the touch fastener of FIG. **10**A having the lateral selvedges deflected into face-to-face contact with a mold surface.

[0151] The figures depicted herein are intended to aid the reader's understanding of various features of the invention disclosed herein. Accordingly, the drawings are for illustration only and are not necessarily drawn to scale. Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

[0152] In one aspect, the invention features a touch fastener **100** for use as a mold insert. Referring to FIG. **1**, touch fastener **100** includes a strip-form base **10** having an first upper face **12** and a second opposing lower face **14**, with upper and lower being relative to the depicted fastener orientation. Fastener elements **16** extend from lower face **14** of strip-form base **10** in an array **20**. A metal wire **18** is adhered with an adhesive **22** to upper face **12** of strip-form base **10**. Selvedges **24** extend laterally at an angle and away from (e.g., downwardly as depicted) strip-form base **10** beyond either side of array **20**. Lower faces **26** of selvedges **24** are smooth surfaces, which can engage a mold surface **28** in face-to-face contact.

[0153] In some instances, as depicted in FIG. **1**, a magnet **30** can be positioned in a mold **32** to position touch fastener **100** in a trench portion **34** of mold surface **28**. With the fastener so positioned, a foamable liquid resin is poured into mold cavity **27**. An exothermic reaction occurs, causing the liquid resin to foam up to fill the cavity. The foam adheres or is otherwise secured to the fastener, which becomes a part of the surface of the foam bun removed from the cavity.

[0154] FIG. **2** is a perspective view of touch fastener **100** having selvedges **24** that extend laterally and downwardly beyond array **20** of male fastener elements **16**. Methods of forming molded touch fasteners having stems or fastener elements extending integrally therefrom are well known in the art. For example, a continuous extrusion/roll-forming method for molding fastener elements on an integral, strip-form base is described in detail in U.S. Pat. No. 4,794,028 and in U.S. Pat. No. 4,775,310, the entire disclosures of which are incorporated herein by reference.

[0155] In some instances, the touch fastener product can be laminated to a mesh or scrim material. The scrim material can provide improved dimensional stability. Moreover, the scrim material can be magnetic (e.g., a ferrous-impregnated non-woven material), thus providing a magnetically attractable material as discussed above. Suitable examples of laminates are described in U.S. Pat. No. 5,518,795 to Kennely et al. entitled LAMINATED HOOK FASTENER, the entire disclosure of which is incorporated herein by reference.

[0156] After a continuous length of touch fastener **100** is formed, it is cut to a defined length and then male fastener elements **16** are removed from opposite longitudinal ends of array **20** to provide flat portions **36** of lower face **14** of strip-form base **10**. Alternatively, the fastener elements can be formed to be of such small size that they need not be removed from the longitudinal ends to effect sealing against foam intrusion across the fastener element array. A metal wire **18** is

centered laterally over array **20** of male fastener elements **16**, and adhered to upper face **12** of strip-form base **10** with an adhesive **22**, either before or after the base is cut to length.

[0157] In general, the array of touch fasteners is an array of hooks having a length of about 200 mm and a width of about 4 mm. The selvedges each generally have widths of about 4 mm. The flat portions of the lower face of the sheet form base extend longitudinally beyond the fastener array about 4 mm. The sheet form base is constructed from a resin, such as a polyester, polypropylene, nylon, or other resin, and has a nominal thickness of about between about 0.002 (0.051 mm) and 0.020 inch (0.51 mm), for example 0.005 inch (0.127 mm).

[0158] An alternate embodiment of a touch fastener for use as a mold insert is depicted in FIG. **3**. Touch fastener **200** includes a strip-form base **10** having an upper face **12** and a lower face **14**. A strip of magnetically attractable material **18***a*, such as, for example, iron wire, iron particles, steel, etc., is secured to upper face **14** of strip-form base **12**. Positioned over the magnetically attractable material **18***a* and secured on upper face **12** of strip-form base **10**, for example with an adhesive, is material **38**, such as a woven or a non-woven material, or a knit of fiber, for example a cardboard or paper material. Alternatively, material **38** may be laminated directly to the molten resin of base **10** as the fastener element stems are molded, thereby encapsulating material **18***a*, using a combination of techniques taught by Kennedy et al. (cited above) and Kenney et al. (U.S. Pat. No. 5,945,193), the entire contents of which are hereby incorporated by reference. In some instances, material **38** provides improved adhesion of touch fastener **200** to a seat foam bun. Male fastener elements **16***a* are integrally molded with and extend from lower face **14** of strip-form base **10** in an array **20**. Selvedges **24** extend laterally and downward beyond array **20** of male fastener elements **16** and deflect upward to engage a flat, angled or curved mold surface in face-to-face contact.

[0159] In some instances, as depicted in FIG. **4**, a touch fastener **300** can have adhered to an upper face **12** of a strip-form base **10** a coating of magnetically attractable material **18***b*. In the configuration shown, selvedges **24** are substantially free of magnetically attractable material. In some other examples, the coating extends over the selvedges.

[0160] Referring to FIG. **5**, touch fastener **400** includes a base portion **10** having an upper face **12** and a lower face **14**. Male fastener elements **16**, such as hooks, extend from lower face **14** of base **10** in an array **20**. A magnetically attractable wire **18** is secured to upper face **12** of base **10** with an adhesive **22***a*. A film **40** is adhered to upper face **12** of base **10** by adhesive **22***a* and extends laterally beyond base **10** to form selvedges **24***a*. Selvedges **24***a* have a stiffness that readily allows for upward and/or outward flexure, for example, under force of magnetic attraction.

[0161] As shown in FIG. **5** the film extends longitudinally beyond the sheet form base, forming downwardly directed portions **36***a* that can engage a mold surface in face-to-face contact. Selvedges **24***a* and portion **36***a* can flex to conform to curved or angled mold surfaces. Applicants note that references to "downward" or "upward" in various embodiments is in reference to the fastener strip orientations depicted in the respective figures without regard to the directional forces of gravity. For example, the "unloaded state" position of a highly flexible selvedge could be determined by resting the fastener strip on each face and calculating the unloaded selvedge position as midway between the resulting selvedge positions.

[0162] Base **10** has a length of about 200 mm and a width of about 4 mm. The sheet form base is constructed from a resin, such as polyester, polypropylene, or nylon, and has a nominal thickness of about 0.010 inch (0.254 mm). The array of fastener elements **20** extends over substantially the entire lower face **14** of base **10**. The film extends about 4 mm laterally beyond base **10** and about 4 mm longitudinally beyond base **10**. The film is a polyamide film and has a nominal thickness of 0.005 inch (0.127 mm). Fastener elements **16** are hooks positioned in alternating rows of hooks facing in opposing directions. Although a polyamide film is described in the present embodiment, other films could also be used, including polyurethane or other adhesive films.

[0163] FIG. **6** depicts a cross-sectional view of touch fastener **400** positioned in a mold **32***a* with selvedges **24***a* deflected upward into face-to-face contact with a mold surface **28***a*. A magnet **30***a* is positioned below a trench **34***a* portion of the mold, where trench **34***a* has angled side portions **42**. The force of magnetic attraction between magnet **30***a* and metal wire **18** holds touch fastener **400** in position against the surface of the mold trench **34***a* during foaming. During the molding process, selvedges **24***a* engage mold surface **28***a* in face-to-face contact to prevent fouling of fastener elements **16**. Contact pressure between the selvedges and the mold wall is a function of the magnetic force applied to the wire **18**, and the bending stiffness of film **40**.

[0164] FIG. **6**A shows another example of a tapered trench, this one having arcuate side walls that extend upward from the bottom of the trench. Film **40** is of such a width that lateral selvedges **24***b* of the film are deflected upward as the central portion of the fastener is drawn against the bottom of the trench. The illustrated fastener **600** includes a thin strip of magnetically attractable metal **18***a*, instead of a wire, disposed within the central portion of the strip-form product. Metal **18***a* can be in the form of a shim, for example, and may be perforated, and expanded to form holes through its thickness for improved resin adhesion. Strip **18***a* can be bonded to resin of base **10***a* as the base is formed, or adhered thereto by adhesive, such as adhesive binding film **40** to base **10***a*.

[0165] In some instances, the touch fasteners are molded into a seat foam bun, for example as depicted in FIGS. **7** and **8**. Molded seat foam bun **700**, depicted in FIG. **7**. includes a trench molded portion **44**, which includes a plateau **46** that corresponds to the bottom of a mold trench. The plateau includes lateral edges **48** and angled side walls **50** that correspond to the angled sidewalls of the mold trench. A touch fastener **52** is molded onto plateau **46** and extends across lateral edges **48** and along a portion of angled sides **50**, such that distal edges **51** of the fastener are disposed out of the plane of the fastener element array, and directed down into the bun. Touch fastener **52** includes a base **10** portion having an upper face **12** and a lower face **14**. Extending from the lower face **14** are male fastener elements **16** having stems integrally molded thereto. A magnetically attractable strip **18***a* is adhered to upper face **12** of base **10** and a film **40** covers magnetically attractable strip **18***a* and expands beyond the lateral edges of base **10** to form selvedges **24***a*. Selvedges **24***a* are molded into seat foam bun **700**, creating a smooth surface on the lateral edges **48** and angled side **50** walls of plateau **46**.

[0166] In general, the extension of selvedges **24***a* down side walls **50** can provide strong adherence between touch fastener

52 and seat foam bun **700** and improved resistance to delamination. For example, when upward force "F" is applied to touch fastener **52**, at least a portion of that upward force is resisted by a shear force "S" between angled selvedges **24***a* underlying foam and helping to prevent cracks from forming between touch fastener **52** and seat foam bun **700**, which can lead to dislocation of touch fastener **52**.

[0167] For use in a tapered mold trench as shown in FIGS. **6** or **6**A, selvedges **24***a* of the fastener product preferably are of a bending stiffness or flexural rigidity sufficiently low to enable the selvedges to be deflected upward and/or outward into face-to-face contact with the side walls of the mold trench, and to allow the attractable magnetic forces to pull the central portion of the fastener product into planar contact with the bottom of the trench across the entire hook array. However, the selvedge bending stiffness should also be high enough to maintain a contact pressure between the selvedges and mold surface, preferably even along the lateral edges of the selvedges during the foaming process. For many applications employing typical mold magnets and reasonable trench widths, a selvedge material having a flexural rigidity of between about 1000 and 3000 gm-cm, as measured in accordance with the Cantilever Test option of ASTM D1388, should be suitable. However, different applications may require varying the selvedge stiffness to optimize results. For example, while film has been described as suitable selvedge material, other materials can also be used to form selvedges, including paper or other fibrous material, rubber, cotton or horse hair.

[0168] FIG. **9** depicts a fastener **1000** having a magnetically attractable material **1018** secured to strip-form base **1010**. Magnetically attractable material **1018** is a composite of resin and magnetically attractable particles formed around a core **1019**. Magnetically attractable material **1018** is covered by a cover **1040**. Cover **1040** extends laterally beyond strip-form base **1010** to form selvedges **1024**.

[0169] In some embodiments, the magnetically attractive material **1018** is formed around a core **1019** such as string, wire, thread or other filament, for example by coating core **1019** with resin and magnetically attractive particles. For example, magnetically attractive material **1018** can be formed by coating core **1019** with an adhesive, such as a glue (e.g., an aqueous solution of a glue), and adhering magnetically attractive particles to the glue. In another example, the magnetically attractive particles is sprinkled onto a glue coated thread, or the glue coated thread can be submerged into magnetically attractive particles. The coated string is then positioned onto touch fastener **1000** (e.g., centered on the touch fastener) and adhered to touch fastener **1000**, for example using an adhesive.

[0170] In some embodiments, magnetically attractable material **1018** can be formed as a composite of resin and magnetically attractive particles, for example, in an extrusion process, where magnetically attractive particles such as iron filings are co-extruded with a resin to form a frangible strand of composite material. In some preferred embodiments, the extruded material includes at least about 50% by weight of magnetically attractive particles (e.g., at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least about 85%, at least about 90%, at least about 95%). Accordingly, magnetically attractable material **1018** can be formed as a wire, strip, chord, composite strand, band, insert or any other shape of iron containing elements suitable to retain fastener **1000** within a mold trench.

[0171] Magnetically attractable materials may be associated with a fastener product in many ways. Several ways are disclosed in U.S. Pat. No. 5,725,928 to Kennely et al. entitled TOUCH FASTENER WITH MAGNETIC ATTRACTANT, the entire disclosure of which is incorporated herein by reference. For example, the magnetically attractable material can be incorporated into the base, fastener stems or hooks or can be attached to the base or fastener elements.

[0172] It is desirable that the change in height between the flat areas of film cover **1040** and the raised areas overlying the magnetically attractable material be relatively gradual, avoiding steep discontinuities that could hinder flow of the foamable resin. Accordingly, magnetically attractive material **1018** and cover **1040** are configured to provide a geometry such that the maximum slope angle a of cover **1040** as it is draped over magnetically attractable material **1018** is less than about 75 degrees as measured from the upper surface of sheet form base **1010** to the outside surface of cover **1040**.

[0173] In some embodiments, it is desirable that cover **1040** be a film (e.g., a smooth, non-porous film). In some embodiments, magnetically attractable material **1018** is secured to sheet form base **1010** using an adhesive, whereas in some embodiments, magnetically attractable material **1018** is held in place on the face of the touch fastener by cover **1040** (e.g., cover **1040** is secured to sheet form base **1010** thereby securing magnetically attractive material **1018**, which is positioned between cover **1040** and sheet form base **1010**).

[0174] When used in a molding process to provide a foam bun, the touch fasteners depicted in FIG. **9** provides a geometry that is desirable for reducing the amount of turbulence and stagnation of the foam material as it flows over the surface of touch fastener **1000**. For example, as the foam passes over the touch fastener, it is desirable for the slope angle a of the cover to be less than about 70 degrees, thereby providing for a smooth and slow rise over the surface of the touch fastener. This gradual rise allows the foaming resin to maintain more consistent contact with touch fastener **1000** by reducing local stagnation of the foam material as it moves over touch fastener **1000** and foams, thereby reducing the number of larger air pockets against the back surface of touch fastener **1000** and increasing the degree of adherence of the foam bun to the touch fastener product. It is also preferable for the lateral edges of cover **1040** to provide no more than a very small step over which the foaming resin must flow. For example, films or other cover materials having a thickness of less than about 0.010 inch (0.254 mm) are preferred, if the cover is to be draped against a flat wall surface of the mold. Alternatively, cover **1040** can be recessed in the mold surface by providing a suitable undercut in the mold cavity wall, with the edges of the cover abutting small steps in the wall surface, such that the outer surface of the cover is generally aligned with the mold surface, providing a smooth flow surface for the foaming resin.

[0175] In some preferred embodiments, cover **1040** transitions over magnetically attractive material **1018** in a smooth or gradual slope, as opposed to an angular transition.

[0176] Preferably the back surface of touch fastener **1000** (i.e., the surface against which the foaming resin flows) has no obstruction features that would locally stagnate the flow of resin, such as by presenting a local flow obstacle. FIG. **10**A depicts a cross-section of a fastener **2000** in which a film **2040** extends beyond the width of strip-form base **2010** to provide selvedges **2024** that depend downward from strip-form base **2010** an angle θ between about 10 and 80 degrees, preferably

between about 20 and 70 degrees, and more preferably between about 25 and 35 degrees. Selvedges **2024** are folded along a fold line adjacent strip-form base **2010** to be biased or to depend downward toward the mold. Selvedges **2024** are made to depend downward by bending, rolling, curling, heat setting or other shaping process such that selvedges are directed downward from strip-form base **2010** (i.e., toward the side carrying the fastener elements). For example, in other embodiments, selvedges **2024** depend downward in a single or double curve.

[0177] Selvedges **2024** are constructed and arranged to deflect from this downward angle into face-to-face contact with a mold surface when used in a molding process. In a particular embodiment, selvedges deflect upward between about 15 and 30 degrees from an unloaded downward angle. Deflection of selvedges **2024** into face-to-face contact with the mold provides a seal between fastener product **2000** and the mold surface. Resistance of selvedges **2024** to upward deflection increases the sealing forces present between selvedges **2024** and the mold and thereby increases the integrity of the seal. For example, the sealing interface can be maintained despite a partial separation or misalignment of fastener **2000** from the mold. In cases in which the mold trench is tapered, the resistance of selvedges **2024** to upward deflection also serves to align fastener **2000** in the mold trench.

[0178] FIG. **10**B is a cross-sectional view of a touch fastener **2000** having lateral selvedges **2024***a* extending downward in a double curve from the strip-form base. Selvedges **2024***a* can include any combination of concave and convex curves for use with a particular mold profile. For example, continuous downwardly curved selvedges **2024***a* may be desirable for use with a curved mold surface, as depicted in FIG. **6**A. Similarly, flat selvedges **2024** may be desirable with flat surfaces of a tapered trench or mold top surfaces like those depicted in FIGS. **1** and **6**.

[0179] In some embodiments, selvedges **2024**, **2024***a* include a region of reduced stiffness to provide localized deformation in that region. For example, a crease can be created during downward bending of selvedges **2024**, **2024***a* such that deflection occurs primarily along the crease.

[0180] FIG. **10**C depicts a cross-section of fastener **2000** of FIG. **10**A where selvedges **2024** are deflected outward and upward from the downward depending angle to lay in face-to-face contact with mold surfaces **2028**. Accordingly, selvedges **2024** permit pressed face-to-face contact with flat mold surfaces **2028** eliminating the need to employ the upwardly curved mold surfaces depicted in FIG. **6** and reducing mold tooling expenses. Downwardly depending selvedges **2024** may be used with many different shapes of mold surfaces **2028**. For example, as described with reference to FIG. **6**, selvedges **2024** may be deflected upward into face-to-face contact with an upwardly curved mold surface.

[0181] Preforming selvedges **2024** with a downward angle can be accomplished by folding, rolling, curling, heat setting or otherwise forming or deforming film **2040**. In some embodiments, selvedges **2024** are bent downward adjacent the edge of strip-form base **2010** along a fold line. Selvedges **2024** can be formed from an integral film or can be formed separately and adhered to strip-form base **2010** and/or film **2040**.

[0182] When touch fastener **2000** is inserted into the mold, selvedges **2024** are deflected upward by contact with mold surface **2028** to create a seal with mold surface **2028** along the edges of strip-form base **2010**. Elastic resistance to deflection of selvedges **2024** from the downward position helps to maintain the seal with mold surface **2028** in the event of partial separation of fastener product **2000** from the mold. Selvedges **2024** can be deflected to be substantially parallel to strip-form base **2010** or can be deflected upward at an angle to strip-form base **2010**. Mold surfaces **2028** can be angled or curved or both and selvedges **2024** deflect to lay in face-to-face contact with mold surfaces **2028**.

[0183] Examples of suitable thermally activatable resins that can be provided as films or in other forms include polyamides, polyurethanes and other hot melt adhesives.

[0184] Examples of suitable fasteners are included in provisional application Ser. No. 60/829,761, filed Oct. 17, 2006, which is incorporated herein by reference in its entirety.

[0185] The magnetically attractable material **1018** is a magnetically attractive component composed of particulate material (e.g., magnetically attractive particulate material such as iron filings). The magnetically attractive component is generally elongated, for example in the shape of a chord (e.g., having a substantially circular cross-sectional area) or in the shape of a strip or ribbon (e.g., having substantially a rectangular or oval cross-sectional area).

[0186] The magnetically attractive component is produced to provide a frangible material that can break or separate with the touch fastener product. A "frangible" composite is one that may be readily segmented or rent during recycling of the seat bun as opposed to continuous solid metal wires which can wind around rotary shredding blades during recycling operations. For example, when a touch fastener is a component in a product such as a seat foam bun and the product is recycled, the touch fastener product is often removed from the seat foam bun. In these instances, it is desirable that the magnetically attractable component remain together with the touch fastener, for example, if the touch fastener is cut or torn during the removal process. A component made up of particulate matter is generally preferred to a single solid component such as a wire. The composition of the particulate matter is generally more easily disposed to breakage along with the touch fastener, whereas a component made of a solid such as a wire can result in products where the wire remains a solid form, not being broken down and possibly tearing or otherwise damaging equipment during the recycling process.

[0187] Magnetically attractive material **1018** may be formed with sections of reduced diameter or may even be partially sectioned for ease of breaking during recycling. Still in other embodiments, magnetically attractive material **1018** may be sectioned into discrete portions adhered to strip-form base **1010**.

[0188] The magnetically attractive component **1018** includes magnetically attractable particles such as iron filings, which are fused together to provide a continuous component that has handling properties similar to a compounded product such as rope. In some embodiments, the magnetically attractive component is held together by the physical bonding of the particles. In some embodiments, the magnetically attractive component includes an adhesive to help hold together the magnetically attractive particles. It is generally preferred that embodiments including an adhesive are produced such that the magnetically attractive component is at least about 50% by weight of the magnetically attractive material (e.g., at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least about 85%, at least about 90%, at least about 95%).

[0189] In other embodiments, a magnetically attractive material may be incorporated into base **3010** or fastener element stems **3020**. For example, a wire can be embedded in fastener base **3010** or ferrous particles can be coated onto or embedded in fastener element stems **3020**.

[0190] A number of embodiments of the invention have been described. Nevertheless, it will be understood that various modifications may be made without departing from the spirit and scope of the invention. For example, in some embodiments, selvedges **2024** can be separate film sections and the selvedge thickness can taper between the fastener base **2010** and outward edges of selvedges **2024**.

[0191] Accordingly, other embodiments are within the scope of the following claims.

What is claimed is:

1. A touch fastener strip comprising:
- a strip-form base comprising a first face and a second opposing face extending between lateral edges;
- a plurality of fastener elements extending in an array from the second face of the strip-form base;
- a magnetically attractable material attached to the strip-form base;
- a flexible backing secured to the first face of the base and extending beyond the lateral edges to form selvedges; and
- wherein the backing is shaped such that the selvedges extend, in an unloaded state and in the direction of the fastener elements, beyond the second face of the strip-form base.

2. The touch fastener of claim **1**, wherein the selvedges are deflectable towards the first face between about 10 and 160 degrees when placed in sealing engagement with a mold surface.

3. The touch fastener of claim **1**, wherein the selvedges extend away from a plane of the first face of the strip-form base between about 20 and 70 degrees.

4. The touch fastener of claim **1**, wherein the selvedges extend away from the plane of the first face of the strip-form base between about 25 and 35 degrees.

5. The touch fastener of claim **1**, wherein the selvedges comprise a single continuous film secured to the strip-form base.

6. The touch fastener of claim **1**, wherein the selvedges extend away from the base in a curve.

7. The touch fastener of claim **1**, wherein the selvedges include a region of reduced stiffness to localize deflection of the selvedges.

8. The touch fastener of claim **1**, wherein the selvedges deflect to lay in face-to-face contact with a mold surface.

9. The touch fastener of claim **8**, wherein the mold surface is flat and the selvedges deflect into a mold contact position substantially parallel to the plane of the strip-form base.

10. The touch fastener of claim **1**, wherein the selvedges are formed from a film attached to the first face of the sheet form base and cover the magnetically attractable material.

11. The touch fastener of claim **1**, wherein the selvedges comprise a film less than about 0.010 inch (0.254 mm) thick.

12. The touch fastener of claim **1**, wherein the selvedges are a woven or a non-woven fabric.

13. The touch fastener of claim **1**, wherein the magnetically attractable material is disposed in a strip extending substantially an entire length of the touch fastener and substantially centered in a width of the touch fastener.

14. The touch fastener of claim **1**, wherein the magnetically attractable material is disposed on the second face of the strip-form base.

15. The touch fastener of claim **1**, wherein the magnetically attractable material is a frangible composite material.

16. The touch fastener of claim **1**, wherein the strip-form base includes a peripheral portion that is free of fastener elements for forming a primary sealing interface with the mold and the selvedges extend beyond the base to form a secondary sealing interface with the mold.

17. A method of forming a seat foam bun, the method comprising:
- providing a mold cavity having a shape corresponding to a desired shape of the foam bun;
- positioning a touch fastener in the mold cavity, the touch fastener comprising a strip-form base comprising a first face and a second opposing face; a plurality of fastener elements disposed in an array on the second face of the strip-form base; a magnetically attractable material attached to the strip-form base; flexible lateral selvedges extending in an unloaded state beyond the second face of the strip-form base in the direction of the fastener elements at an angle θ between 10 and 80 degrees from the plane of the strip-form base; and
- delivering a foamable resin into the mold cavity to form a seat foam bun, the resin flowing across the selvedges of the touch fastener.

18. The method of claim **17**, further comprising deflecting the selvedges towards the first face between about 10 and 160 degrees into face-to-face contact with a mold surface.

19. The method of claim **17**, wherein the touch fastener further comprises a material disposed on the second face of the base, the material surrounding the plurality of fastener elements and forming a gasket between the base and a surface of the mold cavity.

20. The method of claim **17**, wherein the selvedges extend at an angle θ between about 25 and 35 degrees.

21. The method of claim **17**, wherein the selvedges extend beyond the base in a curve.

22. The method of claim **17**, wherein the selvedges include a region of reduced stiffness to localize deflection of the selvedges.

23. The method of claim **17**, wherein the mold surface is flat and the selvedges deflect into a mold contact position substantially parallel to the strip-form base.

24. A seat foam bun comprising:
- a foam bun; and
- positioned onto the foam bun, a touch fastener comprising
- a strip-form base comprising a first upper face and a second lower opposing face;
- a plurality of fastener elements disposed in an array on the lower face of the strip-form base;
- a magnetically attractable material secured to the strip-form base; and
- flexible lateral selvedges extending beyond the strip-form base and being deflected upwards between about 10 and 160 degrees from an unloaded downward angle θ of between 10 and 80 degrees relative to the plane of the strip-form base.

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