

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2008/0052869 A1 **Fanning** (43) Pub. Date:

(54) AUTOMATIC LEAF BAGGING DEVICE

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(21) Appl. No.: 11/512,526

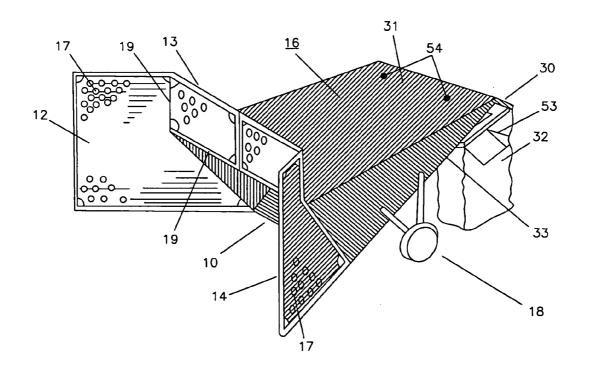
(22) Filed: Aug. 29, 2006

Publication Classification

Mar. 6, 2008

(51) Int. Cl. A47L 9/10 (2006.01)**U.S. Cl.** 15/347; 15/257.1 (57) **ABSTRACT**

The device includes a corral area with porous sides which allows air to pass through while leaves and debris are staged for insertion into the bagger; and an incline plane with an aeronautical design on top, which forces the air and leaves towards the bag chutes the bagging area where air is exhausted and leaves/debris are deposited into the bags via air pressure and gravity. The bags are held in an almost vertical position to facilitate complete filling. The design also includes an infinitely adjustable air baffle, which can be attached to any standard blower to aid in the insertion of the leaves and debris into the chute.



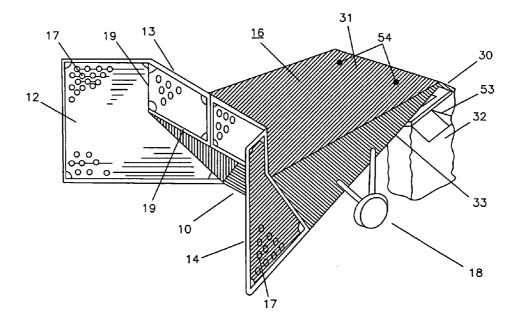


FIG. 1

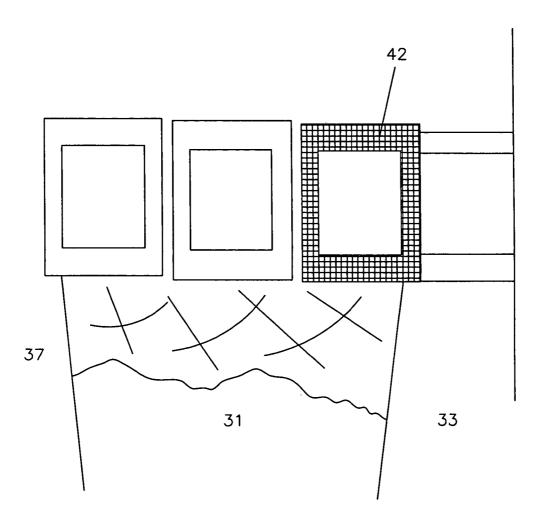


FIG. 2

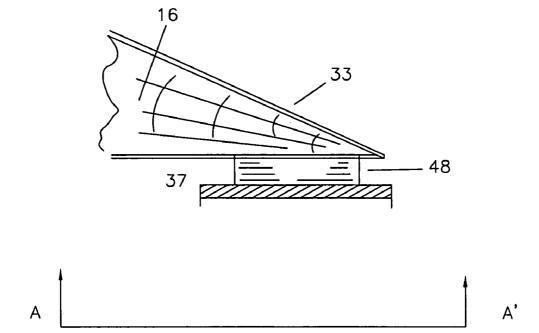


FIG. 3

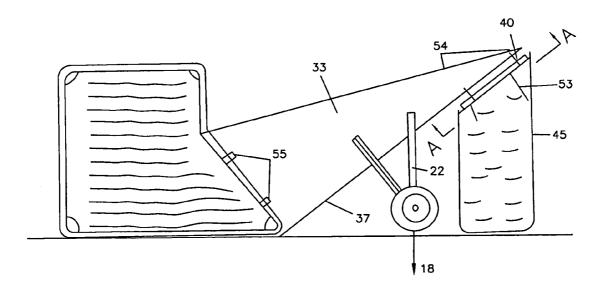


FIG. 4

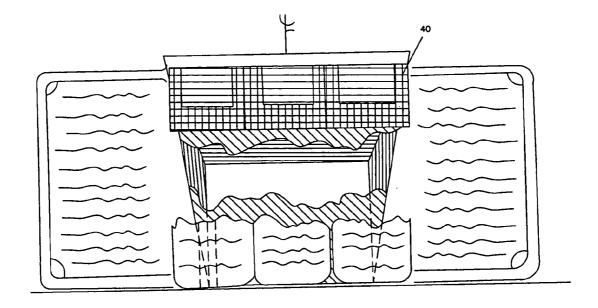


FIG. 5

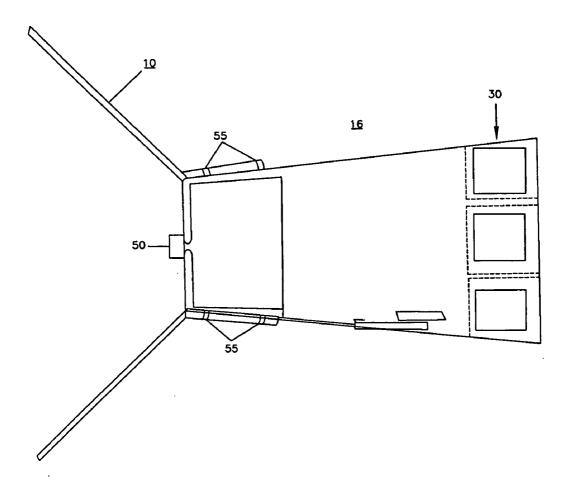


FIG. 6

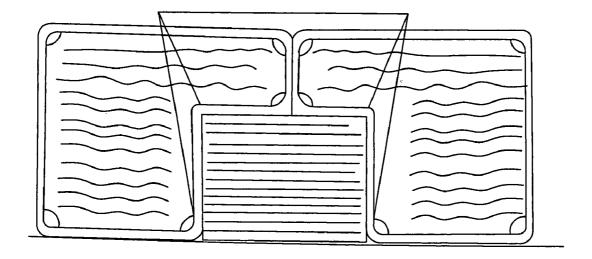


FIG. 7

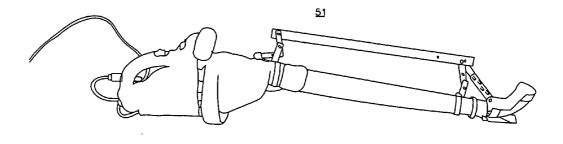
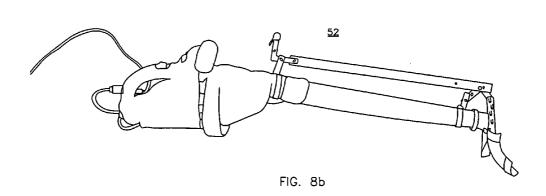


FIG. 8a



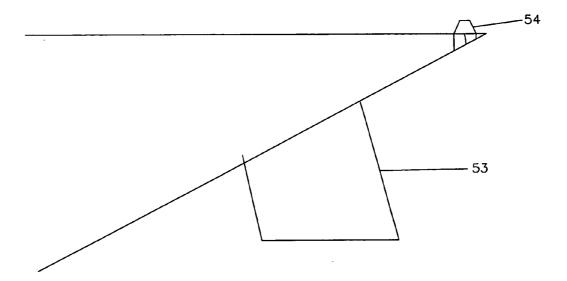


FIG. 9

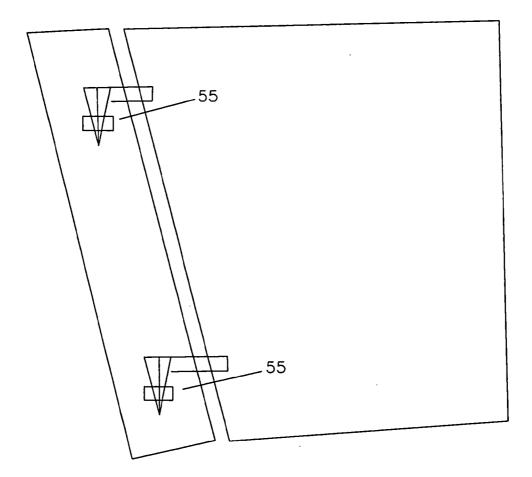


FIG. 10

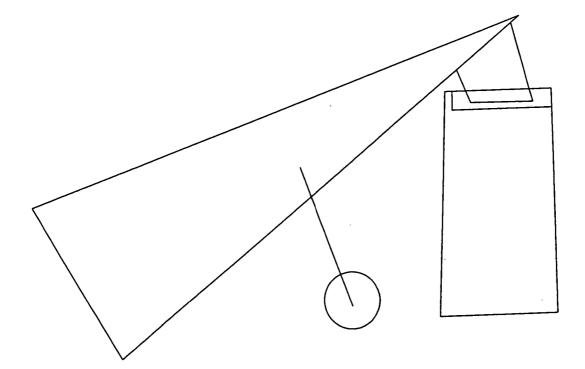


FIG. 11

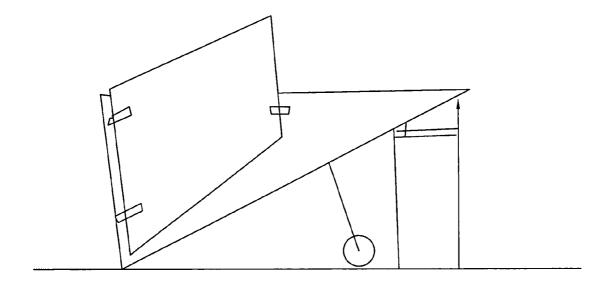


FIG. 12

AUTOMATIC LEAF BAGGING DEVICE

FIELD OF THE INVENTION

[0001] The present invention is directed toward an improved device for debris and leaf bagging.

BACKGROUND OF THE INVENTION

[0002] This invention is directed to a novel system to collect leaves and debris. This device is intended to permit the improved use of existing leaf collection bags that are readily available on the market. The invention permits the filling of a 90 gallons or more of leaves or debris before it is necessary to change the bag.

[0003] Numerous devices have been patented or published disclosing devices for the collection of leaves, debris and trash. U.S. Patent Application No. 20050283942 is directed to an apparatus for facilitating the collection of leaves and/or yard debris using a portable vacuum device. The apparatus includes a top surface and side walls defining an open-bottom chamber. An intake hose leading to the open-bottom chamber receives materials expelled from an exhaust outlet of the portable vacuum device and routes the expelled materials into the open-bottom chamber. The apparatus can be positioned within a yard waste disposal bag. When the apparatus has been filled with yard waste, it can be removed from the disposal bag, leaving the collected yard waste behind in the bag.

[0004] U.S. Patent Application No. 20060021311 is directed to a biodegradable leaf collection net. The patent is a two dimensional leaf collection woven net for collecting leaves. The woven net includes a two-dimensional woven mesh net that has an outer periphery. The woven mesh net has a mesh opening of $\frac{1}{2}$ ".times. $\frac{1}{2}$ " to $\frac{1}{2}$ ".times. $\frac{1}{2}$ ". The woven mesh net is formed of biodegradable fiber material. The woven mesh net also includes a continuous pulling strand extending about the outer periphery of the woven mesh net, the continuous pulling strand is used for pulling a strand section at various locations about the outer periphery to form the woven mesh net into a disposable woven net bag. [0005] U.S. Patent Application No. 20050120692 is directed to a leaf monster. The leaf monster is a two dimensional leaf collection woven net for collecting leaves. The woven net includes a two-dimensional woven mesh net having an outer periphery. The woven mesh net having mesh openings of $\frac{1}{2}$ ".times. $\frac{1}{2}$ " to $\frac{1}{2}$ ".times. $\frac{1}{2}$ ". The woven mesh net is formed of biodegradable fiber material. The woven mesh net also includes a continuous pulling strand extending about the outer periphery of the woven mesh net; the continuous pulling strand is used for pulling a strand section at various locations about the outer periphery to form the woven mesh net into a disposable woven net bag.

[0006] U.S. Patent Application No. 20040221416 is directed to a leaf collection system for a lawn blower/vacuum. The collection system includes a port coupling fitted to the exhaust port of a blower/vacuum, a dust cover, and a unique disposable collection bag. The disposable collection bag is constructed of an environmentally friendly, bio-degradable plastic that will quickly decompose along with the organic leaves and lawn debris collected therein. Both sides of the collection bag have several rows of T-shaped slits and two rows of straight or I-shaped slits that allow air to escape from the bag but retain the leaves and lawn debris deposited therein. The collection bag is shaped

to fit inside the dust cover that is fixed to the port coupling. The port coupling includes an elastic lock ring that secures the collection bag to the coupling. The dust cover envelops of the collection bag and shields the operator from the dust that passes through the collection bag.

[0007] U.S. Patent Application No. 20040197031 is directed to an apertured leaf bag. The leaf collection bag is plastic apertured in a predetermined pattern about its side surfaces, fastenable along its top to an outlet port of one of a leaf vacuum and a convertible leaf blower/vacuum.

[0008] U.S. Patent Application No. 20040003481 is directed to an apparatus and method for collection of debris, whereby the leaves are vacuumed into a collector in a manner to reduce dust spread to the area around the equipment and on the equipment operators. Leaves are discharged by a vacuum device into a collector and retained by screened internal walls. Fine leaf particulate passes through the screens and is directed through the floor to the ground under the collector where the particulate accumulates to facilitate collection. Reusable dust bags may be placed under the floor of the discharge path to collect the particulate matter as it is exhausted through openings in the floor. A fluid spray may be injected into the discharge of the vacuum collection device to wet the leaf particulate and facilitate settling within the collection box.

[0009] U.S. Patent Application No. 20020027097 is directed to a stationary pool leaf net filter. A collection device is provided for collecting floating leaves, bugs, and other surface debris in a swimming pool. A leaf net is attached to a bracket that is clamped/mounted to the edge of a swimming pool. The leaf net extends a minimal horizontal distance into the water of a pool to minimize swimmer interference, has a low profile so that it will not interfere with a pool cover, and easily slides off of the mounting pole for containment of and removal of collected debris.

[0010] U.S. Patent Application No. 20050060834 is directed to a debris collection systems, vehicles, and methods. The invention provides debris collection devices that include a debris contacting mechanism, a debris transport mechanism that is configured to receive debris moved by the debris contacting mechanism at an inlet and move such debris towards a debris storage compartment, and a filter and vacuum assembly. The filter and vacuum assembly includes an inlet disposed downstream of the inlet of the transport mechanism and upstream of the debris storage compartment, relative to the path of transported debris. In operation, the filter and vacuum assembly generate a primary air flow that draws the airborne particles into the inlet of the transport mechanism, along a path proximate to the transport mechanism, into the inlet of the filter and vacuum assembly and though a filter located within the filter and vacuum assembly without generating a substantial airflow through the storage compartment. Related debris collection and processing systems and methods also are provided.

[0011] U.S. Patent Application No. 20010045371 is directed to a portable waste receptacle that includes a bottom and a front wall, a pair of opposing receptacle side walls and rear wall. Each of the walls project upwardly from the bottom and define the interior of the receptacle. The back wall is formed with a flat top portion and had an increasing taper from an initial width at the rear wall midsection to a maximum width at the top leading edge of the rear wall upper section. The top leading edge is further beveled to facilitate placement of debris in the receptacle when the rear

wall is placed on the ground. The receptacle includes a removable lid that has a base, and a pair of opposing lid side walls and rear end portion that extend from the base to establish a scoop configuration for the lid. A lip extends around the receptacle side walls and front wall of the receptacle, and the lid abuts an internal shoulder in the lip when the lid is placed on the receptacle.

[0012] U.S. Pat. No. 6,155,522 describes a yard debris collecting system for providing a chute for facilitating the insertion of lawn debris into a collection bag. The yard debris collecting system includes a pivoted frame, a chute couplable to the frame, a collection bag couplable to the frame such that the chute extends into and opens into the open bag. In an embodiment, a packing tool is provided for compacting debris within the collection bag. In an embodiment, a distal lower edge of the chute is weighted for holding the distal lower edge against the ground during use.

[0013] U.S. Pat. No. 6,085,647 discloses a lawn waste disposal for compacting and channeling the waste into a throwaway bag. The disposer includes an upper portion with converging walls and a lower portion with parallel walls forming a chute into a bag. The entire structure is made of sheet polyethylene and it is entirely rectangular in outline. The upper portion, the converger, is only one-half the height of the lower portion, the chute, to prevent overbalancing. The chute is polyethylene, of which the disposer is made, is reinforced at discrete locations, the converging edges and the bottom edge, of plastic of the same type from which the disposer is made to keep the disposer light in weight, yet strong. A folding metal frame supports the disposer at bag height.

[0014] U.S. Pat. No. 5,593,117 describes a leaf and lawn debris collecting apparatus comprising primarily of a two component funneled receiver and a permanent, reusable bag or a conventional trash bag. The mouth of the bag is held open by the apparatus therebetween the forward component and the rear component with a flexible strap joining together the two components. The funneled receiver is normally placed on the ground with the bag attached thereto. Leaves from a lawn or the like is then raked into the funneled receiver and channeled therethrough into the bag. A cut out hand hold is further included to seat the leaves and debris as needed as well as strategically repositioning and to allow the apparatus to be hung vertically from a protruding nail on a wall or the like.

[0015] U.S. Pat. No. 5,498,046 describes a manual scoop and rake system for collecting leaves and other light debris that comprises a collector and a rake which can be manipulated readily to facilitate stashing materials in plastic bag. The collector includes a generally conical body portion that rearwardly converges along an axis to a generally circular egress, a forwardly projecting scoop portion that defines with the body portion a frustro-circular ingress, and a handle portion that adjoins the body portion along the axis, the scoop portion and the handle portion being diametrically opposed with respect to the axis. The rake includes, along an axis of elongation, a forward claw having projecting downwardly curved talons, a rearward cuff that is adapted to envelop the arm of an operator, and a medial transverse handle that is adapted to be gripped by the hand of an operator. The system is such that an operator, with one hand, can grasp the collector handle and an edge of a plastic bag in order to hold the mouth of the bag in position about the collector's ingress, and with the other hand and arm, can engage the rake handle and cuff by which to control the claw in order to sweep the leaves and other light debris into the collector's ingress.

[0016] U.S. Pat. No. 5,107,666 describes a lawn scoop that allows one to readily collect leaves and like lawn debris from a grassy area. The scoop has a tubular end with handles extending from either side of the tubular end. A plastic bag is releasably connected to the tubular end as by laying the open mouth of the bag over a groove, with a rubber gasket, on the exterior surface of the tubular end, and clamping the open mouth of the bag into place. The handles of the scoop are grasped by the user, and the scoop is moved into the pile of leaves and like debris to force the debris through the tubular portion of the scoop in the plastic bag. Once the plastic bag is filled it is disconnected from the tubular end by unclamping the clamp, and replaced with another bag. The entire scoop, with the exception of the clamp (which may be a campaniform ring), is an integral piece of ABS plastic.

[0017] U.S. Pat. No. 5,106,041 describes a trashbag holder with flat edge. A trashbag holder for holding open the mouth of a trashbag to facilitate filling with trash being a generally triangular frame in which one side is a rectangular panel and the other sides are two resilient rods joined together at two ends and whose other ends join opposite ends of the panel. The triangular frame is inserted into the mouth of the bag to maintain the mouth open. A gripper/connector acting with force from the resilient rods secures the lip of the bag to the frame. The holder and bag may be laid on the ground in order to rake debris into the bag or hung from a spike in a wall or post for loading in the vertical position.

[0018] U.S. Pat. No. 5,090,756 describes a material compacting device that compacts and contains compactable material, including a collapsible directing element having an entrance funnel section which converges into an exit section of smaller dimensions than said entrance funnel section, the funnel section including a hole therein; a clamp strap for clamping a netting material on the exit section; restraining straps for securing the clamp strap on the directing element, the restraining straps being connected between the directing element and the clamp strap; and an elongated cord for preventing movement of the directing element during a compacting operation, the elongated cord having a first end connected to the directing element at the hole and a second free end extending forwardly of the entrance funnel section and which can be engaged by a person for preventing movement of the directing element.

[0019] U.S. Pat. No. 5,048,778 describes a trash bag apparatus for holding a trash bag. The apparatus includes a base structure having an opening therethrough for allowing the body portion of the trash bag to extend therethrough and having a lip adjacent the opening for allowing the opened end of the body portion of the trash bag to be folded there over and a funnel structure having an opened first end for being positioned within the hollow body portion of the trash bag and within the opening of the base structure and having an opened second end. The funnel structure has a passageway extending between the first and second ends thereof for allowing trash inserted into the second end to pass there through into the hollow body portion of the trash bag. The cross-sectional area of the passageway at the second end of the funnel structure is larger than the cross-sectional area of the passageway at the first end of the funnel structure and larger than the cross-sectional area of the opened end of the body portion of the trash bag.

[0020] U.S. Pat. No. 5,011,103 describes a leaf bag and collapsible frame that supports a leaf bag in such a position that a portion of the bag rests horizontally on the ground and the remainder of the bag and is so attached to the frame so as to present a large arch-shaped opening to facilitate the collection of leaves, grass trimmings and other garden and lawn debris. The arch is formed by an overhead, resilient rod member inserted through an overhead receiving hem or fabric tunnel in or adjacent the perimeter of entrance to the bag. A pair of elongated rigid stabilizing feet are placed along the ground within the entrance to the bag. The ends of the overhead rod member are then inserted in an upwardly facing support cavity on each stabilizing foot. The overhead member forms an arcuate hoop or arch which supports the opening of the bag in a generally upright plane, with the remainder of the bag extending horizontally and parallel to the stabilizing feet. In a preferred embodiment, a second horizontal loop is secured at each end to a rearwardly facing cavity or passageway in each stabilizing foot. An intermediate portion of the horizontal hoop is attached to the floor of the bag to help retain the bag in a stretched out condition and maintains the arch member in close proximity to the

[0021] U.S. Pat. No. 4,832,292 describes a method and apparatus for holding a trash bag. In the preferred embodiment the invention is a one-piece injection molded apparatus for holding and facilitating the filling of a trash bag and method for use. The apparatus has a perimeter for holding the bag open, a curved rim on one side of the perimeter for retaining the bag and for gripping when lifting the bag, and a flattened portion of the perimeter for engaging a surface. The flattened portion has a protruding lip opposite the curved rim for standing the apparatus upright and for acting as a receiving ramp for sweeping into the bag.

[0022] U.S. Pat. No. 4,697,835 describes a combined lawn debris receptacle-target apparatus for facilitating the accumulation, collection, and bagging of outdoor debris and which coverts to a recreational target comprising a rear frame structure; a front guide-holder structure; a front wheel-support structure; and a plurality of joint locations for connecting adjacent elements of the apparatus. In particular, the rear frame structure includes a rear, a central lower, and a side upper and a lower straight member. The guide-holder structure includes an upper and a lower connecting straight member and a side U-shaped member. The wheel-support structure includes a lower straight member and wheels at the ends of such lower straight member. The plurality of joint locations includes a means for mutually connecting ends or other portions of apparatus members. The joint locations are such that the rear ends of the central lower straight members may move axially and may rotate relative to the rear straight member; and the front ends of the central lower straight members may be disconnected whereby the lawn debris receptacle configuration may be converted to the recreational target configuration. A feature of the present invention is that the rear frame structure side lower and central lower straight members provide both structural support and debris weight support; and that the guide-holder structure provides structural support, means for guiding the debris in the forward direction, and means for removably attaching the bag to the apparatus.

[0023] U.S. Pat. No. 6,722,672 describes a handcart with detachable bin having a removable debris bin, a partition, a ramp for sweeping, raking or otherwise sliding debris into

the cart or its bin, and pivotable handles, wherein the cart may be utilized with or without the debris bin, and wherein the cart may be utilized in a vertical or horizontal position. To assist in preventing the debris or other content of the cart from spilling out, a partition is provided that slidably engages within tracks formed on the interior of the cart. When the debris bin is not installed, the partition serves to keep debris and other contents within the cart. Handles are pivotably connected to the cart to allow not only a multitude of advantaged lifting angles, but also the lifting of the handles such that the handles will not interfere with the loading or unloading of the cart. Alternative embodiments provide an opening in the partition for providing access to the debris bin, and an opening, rearward of the cart, useful for the spreading of granular materials.

[0024] U.S. Pat. No. 4,693,504 describes a pick-up device for lawn debris. The device is a carrier for particulate material, comprising a pair of elongated rigid bars which are attached to opposite side edges of a sheet of planar flexible material. The dimension of one end edge of the sheet of flexible material is substantially less than the opposite end edge thereof, so that when the carrier is in the fully extended position, so that all elements lie in the same plane, the two rigid bars taper toward each other from the wide end of the sheet to the narrow end of the sheet.

[0025] U.S. Pat. No. 4,312,531 describes a filling aid for plastic trash bags and the like which is selectively positionable within a can-received flexible bag for a stabilization and protection of the bag and a guiding of debris and the like into the bag. The aid includes an elongated tubular split sleeve having open inner and outer ends and being of a resiliently flexible nature for a selective varying of the circumferential size thereof. The outer end of the sleeve includes an outwardly curled flange engageable over a can rim for the clamping of a bag thereto. An outwardly flaring scoop extends longitudinally from the flanged end of the sleeve, tapering from engagement with the periphery of the sleeve about approximately one half the circumference thereof, to a straight outer edge of a length greater than the normal diameter of the sleeve.

[0026] U.S. Pat. No. 6,565,101 describes a hauling tarpaulin for single-handed operation. This hauling tarpaulin can be deployed, loaded with refuse, moved and unloaded by a single person. A stored tarpaulin rolled about a mandrel is easily unrolled and filled with lawn refuse. The mandrel holds the tarpaulin flat on the ground despite wind. When the hauling tarpaulin is filled with refuse, the hauling line is pulled, causing the mandrel to rise up on its legs, and the sides to rise, forming a boat-shaped structure which engulfs the refuse. The hauling tarpaulin then is pulled by the hauling line to the refuse collecting point. At the collecting point the tarpaulin is restored to its flat form and the waste material unloaded.

[0027] U.S. Pat. No. 6,202,718 describes a multi-function transporter for yard debris. The yard debris transportation device includes a multi-panel assembly that is moveable between a collection configuration and a transport configuration. The panel assembly includes first, second, third, and fourth panel sections that are hingeably connected in series. In the collection configuration, the panel sections are open and substantially flat, such as laying against the ground. After yard debris is placed thereon, the panel assembly is changed to the transport configuration, forming a shell about a cavity having the yard debris therein. The end panel

sections overlap in the transport configuration so that cutouts on the end panel sections overlay one another, thereby forming at least one gripping hole. The gripping hole(s) are used as a handle to carry the panel assembly with the yard debris trapped therein from the collection location to the remote dumping location. The panel assembly is inserted into a trash bag and the gripping hole(s) is released. With the panel assembly at least partially opened from the transport position, yard debris flows out the lower opening of the panel assembly and into the trash bag. The panel assembly may then be easily carried to the same collection site or a new collection site.

[0028] U.S. Pat. No. 5,664,886 describes a debris capturing lawn net. A net for collecting leaves from a lawn. The inventive device includes a capturing web positionable in a flat orientation over a lawn. A closure assembly is mounted to the web and operates to pivot an outer peripheral edge of the web upwardly from the lawn and subsequently inwardly to trap debris in the net for disposal thereof.

[0029] U.S. Pat. No. 7,007,991 describes a refuse container with a replaceable bag. The hand held frame is made to hold a plastic bag open for reception of leaves and includes a U shaped frame over the open end of the bag which is draped, and elastic cords for holding the bag in place on the frame with a plate fastened to the end of each of the cords, the plate having an opening for hooking on a button on the frame.

[0030] U.S. Pat. No. 6,604,716 describes a lawn and leaf bag holder of one piece, wire rod construction including a triangular frame for positioning the open mouth of a plastic lawn or leaf bag, a handle extending upwardly from an apex of the triangular frame to form a handle for the bag holder and a pair of anchoring loops on each side of the frame adjacent the frame apex. The open mouth of the bag is stretched or tensioned around the triangular frame and secured with one or both of the anchoring loops. One segment of the triangular frame and bag can be positioned against or adjacent a ground surface to enable leaves, lawn debris and the like to be raked or swept into the open end of the bag while the frame and the open end of the bag are oriented in a vertical plane by a user grasping the handle to support the frame and open end of the bag in the vertical position and also enabling the bag to be moved to new positions as desired.

[0031] U.S. Pat. No. 5,211,434 describes a slidable utility carrier. A slidable utility carrier which has a rectangular bottom panel and four rectangular side panels which form a rectangular box-like structure having an open top. Each side panel is hinged to the bottom panel and is secured to the adjacent side panel by removable fasteners. The carrier can be collapsed to a fully opened state in which all of the panels lay in the same plane and extend outwardly from the bottom panel for collecting loose particulate material or to a compact state in which the side panels overlie the bottom panel to form a compact package for storing.

[0032] U.S. Pat. No. 6,953,213 describes a leaf collector for collecting and gathering loose material such as grain, rocks, leaves, grass clippings, and the like. The device includes a substantially flat sheet. The sheet may be of various shapes. The device also includes one or more obstructing members that extend outward from a top surface of the sheet. The obstructing members are sized and shaped such that, when the sheet is rolled in a manner circumscribing the obstructing members, the obstructing members coop-

erate to obstruct or block one end of a container formed by the sheet. A user may gather material onto the sheet in a planar configuration and then roll the sheet to form a temporary container with the material kept inside by the sheet and the obstructing members. The rolled sheet and obstructing members cooperate to form a temporary container for transporting loose material.

[0033] U.S. Pat. No. 6,764,093 describes a collapsible wheelbarrow which is constructed with a pliable bin and pivotally connected handle members. The handle members are pivotally connected to a frame about first pivot axes, wherein the handle members may be moved outwardly away from an imaginary bisecting line of the wheelbarrow to provide easier loading capabilities. The handle members may also be pivotally connected about second pivot axes to allow the handle members to pivot inward to reduce the width of the wheelbarrow for convenient storage. In an alternative embodiment, the handle members are rigidly connected to the frame.

[0034] U.S. Pat. No. 4,991,500 describes a refuse compactor device that has a container housing having an open top end for holding a trash bag in which the bag mouth is in registration with and folded over the open top end of the container for receiving trash to be compacted. The compactor device further includes a compactor plate received within the container housing for manual movement from the open top end of the housing toward the bottom end of the housing to compress refuse material in the trash bag. The housing has ventilation apertures in its side wall and bottom to allow air trapped between the bag and the side walls of the housing to be expelled from the container. The compactor plate also has ventilation apertures to allow air included in the refuse to be expelled from the container as the plate is moved into the trash bag and housing. The compactor plate further has an opening to receive therethrough the mouth end of the bag for convenient closing of the bag mouth.

[0035] U.S. Pat. No. 5,546,738 describes a device for collecting lawn debris. The leaf clipping collector includes a bottom wall made of rigid plastic that has an out edge defining a generally circular periphery and a generally vertically extending sidewall rigidly fixed relative to the bottom wall. The sidewall has a lower edge integrally formed with the outer edge of the bottom wall and having an upper edge an opening, the sidewall has extending therethrough a pair of slots and a strap extending through the pair of slots and has opposite ends.

[0036] U.S. Pat. No. 4,723,803 describes a leaf bagging device wherein a pair of diverging arms carried by a handle spread the bag in open position between the free ends of the arms and positive means are provided for securing the open edge of the bag along the arms which are secured manually by the user to quickly and positively fasten the bag in open position for the reception of leaves.

[0037] U.S. Pat. No. 5,009,377 describes a debris collection for a lawnmower. The debris collection device detachably mounts on the handle structure of a lawnmower. The person operating the mower can place in the collection device any cans, sticks, papers, etc. that he encounters while mowing the lawn. The collection device preferably includes an annular bag-suspension frame having a resilient clip structure extending along one of its edges. The clip structure can be manually snapped onto (or off of) a tubular arm structure that forms part of the handle of a conventional lawnmower.

[0038] U.S. Pat. No. 6,023,892 describes a combination flashing and mortar and debris collection device and system for use with cavity wall constructions. The device comprises a flashing member having a mortar and debris collection material applied to at least a portion of the surface thereof. The flashing member includes an upper portion that is received within the inner wall at an elevation above the floor of the cavity, an inclined central portion that extends from an elevated portion of the inner wall through the cavity to the base portion of the outer wall, and a lower portion that is received at the base of the outer wall. The lower portion of the flashing member includes means to define weep holes. [0039] U.S. Pat. No. 5,878,461 describes a device for the collection, compressing and discharge of loose the device being formed from a body of flexible material having a self-sustaining, scoop-shape. The body has a flat bottom, lateral sides, and an open top. The bottom merges with the lateral sides at one of the ends of the body to form a flat edge thereat, and at its other end, the body has an end wall extending upright from the bottom. The lateral sides have upper edges extending from the flat edge upwardly to an upper edge of the end wall thereby defining an open, interior cavity adapted for receiving loose material therein. The lateral sides and the bottom are joined to the end wall by fold lines forming stabilizing corners which provide the selfsustaining shape of the body while the flexible material of the body allows the lateral sides to be overlapped on one

[0040] U.S. Pat. No. 5,785,369 describes an apparatus for the collection of debris. The apparatus consists of two components, the first of which comprises a chute having a forward-projecting member for scooping and gathering debris, the second of which comprises an apparatus having a housing into which one's hand and arm may be inserted and a tool for gathering debris, the tool of which projects from or attaches to the housing. The two components may be used independently, or, more preferably, in concert with each other for maximum ease and efficiency in the collection of debris.

another to compress and confine the loose material in the

cavity. When the lateral sides are overlapped on one another,

an opening is formed from which the compressed, loose

material can be discharged into a receptacle.

[0041] U.S. Pat. No. 6,708,742 describes a leaf and debris chute that includes (a) an upper chute portion having an open front portion, the chute portion including a back portion with a front end that is wider than its rear end, and two smaller, matching chute sides attached to either side of the back chute portion; and (b) an open-ended lower channel portion connected to the chute portion, the channel portion having four sides consisting of an upper section, a channel back section opposite to the channel upper section, and two narrower channel side sections, which are opposite to one another and which connect the channel upper section to the channel back section. The chute apparatus may also include clips on the sides, or an external ridge, for removably attaching the edges of a trash bag. In one embodiment, which does not include a channel portion, the chute sides are hinged for achieving a folded, storage position and various open positions with different degrees of angle.

[0042] U.S. Pat. No. 6,318,588 describes a garden debris container for easy collection of garden debris. The garden debris container includes a housing. The housing has a bottom wall. A peripheral wall is coupled to and extends away from the bottom wall. The peripheral wall has free

edge. A flange is coupled to the free edge of the peripheral wall. The flange extends in a direction generally away from the bottom wall.

[0043] U.S. Pat. No. 6,877,182 describes a lawn and garden waste can. An improvement to a four sided trash container having wheels and a hinged lid and including a ramp in at least one side of the can near an upper rim of the container. The ramp would be either fixed or pivotal, with the upper rim on which the ramp is located also including a tapered sweep above the ramp, for raking or sweeping debris into the container without the debris falling back out of the container during filling of the container while on its side.

[0044] U.S. Pat. No. 6,983,965 describes a leaf collecting system. The chute is fabricated of a resilient, generally rigid material. The chute has a central section and two side sections coupled to the central section. The central section and each side section have input edges, output edges and side edges there between. Each side section has a cut out extending from its output edge toward its input edge. The cut out extends inwardly from its exterior edge. The chute is adapted to be held in an open orientation. The side sections are in a spaced configuration. The input ends and L-shaped cut outs within a trash container and the remainder of the chute extend outwardly from the trash container. In this manner a user may sweep leaves and other debris onto the central section of the chute between the side sections and into the trash container.

[0045] U.S. Pat. No. 6,135,518 describes a bag support for a paper or plastic trash bag such as are commonly used to gather lawn and garden waste for disposal. The bag support has a funnel connected to a nozzle with a nozzle outlet. The funnel and the nozzle are rectangular in cross-section with opposing side walls and end walls. Slots are provided in the opposing side walls or the end walls or both of the nozzle. The funnel and nozzle are integral and the bag support is preferably formed in two identical sections with complementary male and female couplings for releasably joining the sections.

[0046] U.S. Pat. No. 5,205,107 describes a bag loading apparatus for collecting particulate matter and directing it into a bag, including a generally planar base having a pair of spaced lateral edges and a pair of spaced ends joining the edges, a pair of side plates pivotally attached to said spaced lateral edges and movable between a storage position substantially parallel to said base and an operating position substantially perpendicular to said base, and means for temporarily positioning and retaining the bag when said side plates are in said operating position.

[0047] U.S. Pat. No. 5,271,589 describes a disposable bag support for supporting a plastic trash bag in an open and upright position while protecting the plastic bag from becoming ripped and punctured. The device is made up of a tubular base and a funnel member. The tubular base, made of corrugated paper having waxed interior and exterior surfaces, has of a plurality of side panels some of which have cut slits to receive flaps from the funnel member for interconnection between the two components. The funneling unit has an interlocking means coupled to its opposite ends to interconnect the ends to form the funnel shaped. The funneling unit further comprises a fastening means for affixing the funneling unit to the tubular base. The funneling unit also has a means for securing the plastic bag in an open and upright position. When the tubular base is inserted into the plastic trash bag, the plastic bag is raised into an open and

upright position and secured by the securing means. After being filled, the plastic bags are detached from the securing means and the tubular base is removed causing the plastic trash bag to fill and remain in an open and upright position. [0048] U.S. Pat. No. 4,567,623 an improved leaf and debris collection apparatus which features a centrifugal fan mounted on a wagon and driven by an engine. The inlet side of the fan is connected to an inlet head just above ground level and its outlet side is connected to an outlet plenum, comprising an outlet port for attachment of a disposable bag. A punch is provided for punching a large number of holes in the disposable bag so that air pressure is not collected within, so that the disposable bag can be used to collect the leaves and debris. In a preferred embodiment, the plenum has holes formed therein for release of air pressure, and the bag is disposed vertically beneath the plenum.

[0049] U.S. Pat. No. 7,020,930 describes a combination lawn care sweeper thatcher shredder having rotary brushes mounted in a housing and projecting through a bottom opening in the housing for sweeping up debris. A vacuum fan with an internal shredder is also mounted to the housing and communicates through a vacuum chute with the bottom opening for drawing in, shredding and discharging debris swept up by the brushes. A damper valve plate is disposed in the vacuum chute between the brushes and the vacuum fan and is operable for closing off the vacuum chute to provide a leaf vacuum port. A linkage is connected to a damper valve plate and also to the drive for the brushes to simultaneously disengage the drive for the brushes and to close off the vacuum chute with the damper valve plate.

[0050] U.S. Pat. No. 6,974,167 describes a pan for use in connection with a trash receptacle with or without a trash bag inserted into the receptacle. The present pan has brackets formed to engage the rim of the receptacle's opening so that debris can be swept directly into the pan and ultimately deposited into the receptacle. Furthermore, the pan elevates the rim of the receptacle so that debris tends to slide toward the bottom of the receptacle. Once the trash receptacle is stood erect, the pan facilitates the moving of all debris easily and quickly into the container or bag.

[0051] U.S. Pat. No. 6.988,293 describes a leaf collection system for a lawn blower/vacuum. The collection system includes a port coupling fitted to the exhaust port of a blower/vacuum, a dust cover, and a unique disposable collection bag. The disposable collection bag is constructed of an environmentally friendly, bio-degradeable plastic that will quickly decompose along with the organic leaves and lawn debris collected therein. Both sides of the collection bag has several rows of T-shaped slits and two rows of straight or I-shaped slits that allow air to escape from the bag but retain the leaves and lawn debris deposited therein. The collection bag is shaped to fit inside the dust cover that is fixed to the port coupling. The port coupling includes an elastic lock ring that secures the collection bag to the coupling. The dust cover envelops of the collection bag and shields the operator from the dust that passes through the collection bag.

[0052] U.S. Pat. No. 6,588,053 describes a vacuum trailer assembly for collecting and disposing debris. The vacuum trailer assembly includes a frame having a hitch portion and a trailer portion. The trailer portion has a plurality of wheels for supporting the frame. The hitch portion is designed for coupling to a vehicle. A vacuum assembly is coupled to the frame. The vacuum assembly includes a flexible intake tube

for sucking debris into the vacuum assembly. The vacuum assembly has a discharge tube for expelling debris from the vacuum assembly. A collection bin is coupled to the frame. The collection bin is positioned whereby debris expelled from the discharge tube is collected in the collection bin. A stand assembly is coupled to the frame. The stand assembly includes a support panel designed for supporting a person thereon whereby the person can manipulate the intake tube to collect debris from an area surrounding the frame.

[0053] U.S. Pat. No. 5,181,294 describes a support and manipulation mechanism for leaf and collection of by a vacuuming process is described which features an improved mechanism for supporting and manipulating an intake hose. A stationary support frame is mounted on a leaf collecting apparatus and a swing arm is pivotally attached to the support frame about a vertical axis. An intake hose cradle is fixed to the swing arm and supports the intake hose from underneath. The intake hose may be adjusted vertically by a hydraulic actuator (extensible piston) located on the swing arm which pivots about a horizontal axis in response to movement of the hydraulic actuator. Further, the intake hose may be manipulated from side-to-side by a handle attached to the intake end of the hose, the swing arm allowing lateral movement by utilizing bearings as pivot points along the vertical axis.

[0054] U.S. Pat. No. 5,630,247 describes a leaf collection box with dust recirculation that includes a vacuum generating apparatus for collecting leaves. An enclosure for holding leaves is connected to the vacuum generating apparatus. The enclosure includes a screened opening. A dust shroud is connected to the enclosure and covers the screened opening. A recirculating means connects the dust shroud to the vacuum generating apparatus. Leaf dust is removed from the dust shroud and recirculated to the vacuum generating apparatus. The preferred enclosure is a leaf collection box including a screened opening in the top wall and a screened opening in the rear wall. Preferably the vacuum generating apparatus including a fan inside a housing.

[0055] U.S. Pat. No. 4,868,948 describes a vacuum refuse collector comprising a body; a refuse container mounted on the body having a refuse chamber; a filter in the refuse chamber of the refuse container dividing the refuse chamber into a refuse side and a non-refuse side; a flexible refuse tube communicating with the refuse chamber on the refuse side of the filter; an atmosphere port; an air velocity increasing means; duct means forming a first air path from the nonrefuse side of the refuse chamber to the inlet of the air velocity increasing means, through the air velocity increasing means and then to atmosphere and a second air path from the atmosphere port to the inlet of the air velocity increasing means through the air velocity increasing means and to the non-refuse side of the refuse chamber; and control means for controlling the differential of air velocity in the first path and the second path to control the air velocity in the pick up tube. [0056] U.S. Pat. No. 5,226,757 describes a yard waste collection vehicle capable of being used to collect various types of yard waste. The vehicle includes a box-like hopper that is adapted to receive materials from a conveyer system, vacuum system, a side access door and a towed chipper machine. The interior of the hopper includes a movable partition that enables a segregation of the hopper's contents with a concomitant ability to separately dump the contents

of each portion of the divided hopper.

[0057] U.S. Pat. No. 3,942,832 describes a leaf collector for positioning a bag for collecting leaves and other refuse therein having an open rim for receiving an open end of a bag which is retained thereabout by an elongated elastic restraining member which confines an open end of the bag over the rim in a groove carried by the outer periphery of the rim.

[0058] U.S. Pat. No. 4,023,842 describes a portable bag for use with flexible garbage or trash bags which includes a resilient frame with divergent legs which must be compressed toward each other in order to mount a bag upon the spreader, the resulting tension between the frame and the mouth of the bag serving to maintain the bag in place. This Abstract is not to be construed in any way to define or limit the invention set forth below.

[0059] U.S. Pat. No. 5,502,871 describes a high capacity dust and litter collector that includes a five sided container having a rear mounted axle and wheels and angulated leading edge with a rubber blade that cause the container to tilt rearward about the axle, tending to cause the contents to remain in the container. A handle attached to the rear of the container curves forward over the container and terminates forward of the midpoint of the bottom wall of the container balancing out the effects of the rearward tilt. Pockets in the rear and side walls accept the wheels making then flush with the side walls of the container.

[0060] U.S. Pat. No. 4,709,440 describes a mobile cleanup device for receiving and transporting debris. The device comprises a wheel mounted collector compartment having a lipped open mouth at the leading edge to receive debris, and a hinged door at the rear to discharge debris. A latch is mounted on the door to hold the door in a closed position and to release the door to allow the door to swing to an open position. The latch is controlled by a lever and cable arrangement mounted on a handle extending upward from the compartment.

[0061] U.S. Pat. No. 6,253,416 describes a blower air stream diverter for use with a mobile air blower which allows the blower air stream to be oscillated vertically or redirected away from the work piece to avoid damage to vehicles and structure that are in the path of the air blower air stream and the apparatus provides for redirection of the air stream in forward and rearward directions.

[0062] U.S. Pat. No. 5,224,239 describes a litter trap for cleaning litter such as paper from a surface and a method of using such apparatus. An open-end portable basket is provided made of wire mesh to hold the litter while allowing dirt and air to pass therethrough. A portable hand held blower directs the litter from the surface into the basket. The basket retains the litter but allows air and surface dirt to pass therethrough.

[0063] U.S. Pat. No. 5,316,060 describes a refuse collector with hinged collection tray for use with a trash bag and for introducing solid refuse into commercial plastic trash bags. One embodiment of the collector includes an open, peripheral frame having a collection tray hinged thereto, and a pair of bag expanders that are hinged thereto and extend rearwardly from the frame and into a plastic trash bag to hold the bag open. In a second embodiment the collector includes three inexpensive, interlocking disposable components. The collector is particularly adapted to collection of hazardous solid waste such as metal chips or refuse contaminated with hazardous, toxic or infectious materials. The collector may be used in a horizontal or vertical position.

[0064] U.S. Pat. No. 4,971,274 describes a combination holder for disposable leaf and rubbage bags and yard tool for maintaining mouth of plastic garbage or leaf bag in open position for storage of garbage for later disposal and garden tool for use in collecting leaves for disposal.

[0065] U.S. Pat. No. 6,293,505 describes a wide opening leaves bagger including a platform having an opening proximate a center of the platform and a bag holder being retained by the platform proximate the opening of the platform. In use, a bag having an opening is held by the bag holder. The opening of the bag is aligned to the opening of the platform. The platform has a wider area than the opening of the bag such that an object received by the platform can be led to the bag via the opening of the platform and the opening of the bag.

[0066] U.S. Pat. No. D327,345 describes an ornamental design for a leaf catcher bag. U.S. Pat. No. D429,609 describes a leaf container. The ornamental design for a leaf container, as shown and described. U.S. Pat. No. D513,352 describes an ornamental design for a leaf chute. U.S. Pat. No. D509,634 describes an ornamental design for a trash bag holder. Finally, U.S. Pat. No. D428,542 describes an ornamental design for a yard waste bagging device.

[0067] All of these devices have significant shortcomings. The vast majority of prior art systems require the manual transfer of the debris collected at the container. Many will not work with a blower. Various prior art devices require the manual transfer of the debris to be collected at the container. Moreover, some require the purchaser to obtain special netting bags or netting rolls. Most of the prior devices will not fill the bag to any reasonable capacity. The present invention seeks to overcome these shortcomings.

[0068] It is an object of the present invention to provide a device to collect 90 gallons or more of leaves or debris without changing any bags.

[0069] It is also an object of the present invention to provide a leaf removal and storage system which requires no tools or manual loading of leaves or debris.

[0070] It is a further object of the invention to provide a device which can be used with a hand-held blower.

[0071] It is a further object of the invention to have a corral hinge for feeding and storage, with no tools needed. [0072] It is an object of the invention to provide a system with a collapsible undercarriage for easy storage.

[0073] It is a further object of the invention to provide a system which permits the vertical positioning of the bags to allow filling the bags to maximum.

[0074] It is a further object of the invention to provide a system which can be used with a blower, having an adjustable baffle.

[0075] These and other objects of the invention will become apparent from the detailed description which follows.

SUMMARY OF THE INVENTION

[0076] In accordance, the invention is an apparatus for collecting leaves and debris comprising a corral area with porous sides for oscillating leaves to be staged for their insertion into the apparatus, a chute proximate to the corral for forcing air and leaves from the corral a bagging area adjacent to the corral where leaves/debris are forced into at least one bag via air pressure and gravity, and an air exhaust proximate to the bagging area to permit excess air to exit the apparatus.

[0077] In a further embodiment, the invention is an apparatus for collecting leaves and debris comprising a corral area with porous sides for gathering leaves and debris which are staged for their insertion into the apparatus, a chute connected to the corral having a conduit for air and leaves to be blown from the corral, a bagging area supporting a plurality of bags where leaves/debris are deposited into the bags via air pressure and gravity, an air exhaust proximate to each bag to permit air into the apparatus, and a baffled blower for blowing leaves and debris from the corral to the bagging area through the chute.

[0078] In yet a further embodiment, the invention is an apparatus for collecting leaves and debris comprising a corral area with porous sides which allows air to pass through while leaves and debris are staged for their insertion into the bagger, a chute corral for forcing air and leaves from the corral, a bagging area where leaves/debris are deposited into the bags via air pressure and gravity, and an air exhaust proximate to the bagging area to permit air to exit the apparatus.

[0079] In an additional embodiment, the invention is an apparatus for collecting leaves and debris comprising a corral area with porous sides which allows air to pass through while leave and debris are staged for their insertion into the bagger, a chute which pivots to the corral for forcing air and leaves from the corral, a bagging area where leaves/debris are deposited into the bags via air pressure and gravity, an air exhaust proximate to the bagging area to permit air to exit the apparatus, and a wheeled under carriage for moving the apparatus.

BRIEF DESCRIPTION OF THE DRAWINGS

[0080] FIG. 1 is a side view of the apparatus with the corral area in the open position.

[0081] FIG. 2 is a detailed view of the bag attachment area and air exhaust system.

[0082] FIG. 3 is a side view of the bag attachment area and air exhaust system.

[0083] FIG. 4 is a side view of the apparatus.

[0084] FIG. 5 is a back view of the apparatus.

[0085] FIG. 6 is a top view of the apparatus with the corral area open.

[0086] FIG. 7 is a front view of the apparatus with the corral area closed.

[0087] FIGS. 8a and 8b are perspective views of the baffle mechanism of the present invention.

[0088] FIG. 9 is an exploded view of the upper end of the chute shown in FIG. 4.

[0089] FIG. 10 is an exploded view of the tapered hinges shown on an alternate embodiment of the invention.

[0090] FIG. 11 illustrates a side view of the alternate design shown in FIG. 10 with the corral area closed.

[0091] FIG. 12 illustrates a side view of the alternate design shown in FIG. 10 with the corral area open.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0092] The present invention is described with reference to the enclosed Figures wherein the same numbers are used where applicable. The device broadly comprises an apparatus for the collection and storage of or removal of leaves and lawn debris. The invention further includes a device associated with a blower for holding and selectively moving a

baffle for aiming the blowing leaves and debris into the debris collecting apparatus. Referring to FIG. 1, the apparatus comprises three core elements. The elements include a corral area 10 which forms an area for accumulating leaves and debris, a chute 16 which provides a conduit for leaves to be blown from the corral, and a bag support 30 and bagging area 32.

[0093] The corral area 10 is fastened such that its sides 12, 14 can swivel from the working position to the stored position. This enables the device to be moved around on the area to be cleaned and further permits the corral sides 12, 14 to be lifted off for storage. Specifically, the corral sides 12, 14 comprise a rigid frame covered by a porous or mesh material 17 which allows air to pass through from the blower during the corralling process, while retaining the leaves and debris

[0094] As noted, the sides 12, 14 of the corral are movable and have two basic positions, a stored raised position for moving the device around to collect the debris and leaves, and a working position which creates an approximate angle of 45 degrees with the chute sides. The side walls 12, 14 of the corral guide the leaves and debris into the chute 16. The corral should be rigid so that it is large enough for a substantial pile of leaves to be blown in.

[0095] The corral includes a top wall 13 which, when deployed in the working position, prevents leaves and debris from being blown over the top of the chute 16. Hinges 19 allow the corral doors to be swung backwards for movement of the device around in the area for cleaning and for easy and flat storage.

[0096] Referring now to FIGS. 1, 4 and 5, the chute 16, in a most preferred design, is four sided and is preferably trapezoidally shaped. The chute has top, bottom and side walls 31, 33, and 37. The chute is supported by wheels 18.

[0097] The chute 16 comprises flat tapered sheets of polyethylene material, plastic, wood, or other material and is reinforced and formed in such a way as to be high at the front opening and thin and broad at the rear, to which are attached to four fasteners. The chute 16 will preferably have three opaque sides. The top side 31 may be transparent or include a window which will allow the user to determine when the bags 45 in the rear are full and to ensure the chute is kept clear. At the upper end of the chute are two tapered positioning protrusions 54 which assist in aligning the top and sides when assembling the device.

[0098] The device preferably includes wheels 18. The wheels 18 have a dual function. First, the wheels 18 hold the chute 16 up at a proper angle to permit leaves and debris to be forced through an incline. Second, the wheels enable easy movement of the device around an area to be cleaned. The wheels 18 are connected to a collapsible undercarriage 22 for easy storage of the device when it is not in use.

[0099] Referring now to the rear of the system, the system includes a bagging area 30. The bags are placed on hooks 40 where an air exhaust system 42 is located proximate to bagging area 30. The exhaust system 42 comprises a porous material which surrounds the bags, the bags being substantially vertical so that gravity and air pressure will assist the leaves in falling to the bottom of the bag. The leaf guides 53 perform two functions, they hold the air exhaust frame to the bottom of the chute and their length and angle assist in the even filing of the bags. The preferred embodiment includes three bagging areas 30. The bags, which are of the type sized

for storing leaves and foliage, are impaled on the hook with the bottom of each bag resting on the ground at an almost vertical position.

[0100] Referring to FIG. 2, the air exhaust panel 42 surrounds each bag in the apparatus. The air exhaust comprises a rigid frame supporting a mesh material which allows air to escape while containing the leaves and debris and, forces them into the bag.

[0101] Referring to FIGS. 1, 3 and 4, the side of the chute is shown. The chute connects to the air exhaust area 30 via a rigid connector 48. As shown in FIG. 4, the near vertical positioning of the bags are shown while the corral doors are in open position.

[0102] FIG. 5 illustrates the air exhaust areas and displays the mesh in the corral area. Referring to FIG. 6, the device is shown with the corral doors open for collection and the air exhaust system is visible. Referring to FIG. 7, the device is shown with the corral doors open to an approximate 45 degree working position.

[0103] FIGS. 9, 10, 11, and 12 reveal further embodiments of the invention. FIG. 9 illustrates the upper end of the chute 16 and exhibits the intersection of the chute with the leaf guides 53. FIG. 10 shows an exploded view of the tapered hinges 55 that are used to open and close the coral. Referring to FIGS. 11 and 12, a side view of the device is shown.

[0104] The operation of the invention is now described. During operation, the leaves are accumulated at the corral area at the front end of the device by the moving of a baffled blower. The leaves are forced through the chute system and pushed through the air exhaust system into the bags at the rear of the device. Gravity and air pressure from the blower operate to force the leaves to fall into the bags.

[0105] As noted, the present invention is intended to be used with a hand held blower as shown in FIGS. 8a and 8b. In one embodiment, the blower includes a two position L-shaped baffle 50. The baffle 51 is attached to the blower 52 and can be adjusted by a handle. In a first position, the L-shaped baffle forces the air at a 90° angle toward the chute. This device moves the leaves and debris up the chute.

[0106] Alternatively, when used a distance away from the leaf bagger, the baffle is put in an operative position so that it does not interfere with the airflow. After the leaves have been blown into the staging area, the baffle is adjusted to a position of angle to match the incline plane. This baffle thus makes the air bagger much more efficient and removes the need for a user to bend down to blow the leaves up the incline. When the work is done, the corral 10 is removed and reattached by lifting it off or on the tapered hinges 55 without the use of any tools. These may be hung flat or stored in any storage area.

[0107] The apparatus will include a retractable handle 50 so that it can be easily moved around the area being cleaned. The aeronautical design of the incline housing the chute is such so as to reduce and prevent air "back pressure" while forcing the leaves and debris and air toward the bagging area and into the bags. The invention provides for the efficient movement of the leaves and debris from the ground up into the bags with no manual intervention.

[0108] The device is preferably configured to use biodegradable bags of the type required by many municipalities. When not in use, the device can be collapsed into three

sections for ease of storage. The chute sides may be removed by ½ turn of each of the four thumb screws. This will allow the sides to fold inward and the top to be lifted off. The wheels 18 are then collapsed against the bottom for ease of storage.

[0109] The present invention has been described with reference to the above discussed preferred embodiments. It is to be appreciated that the true nature and scope of the present invention is determined with reference to the claims appendixed hereto.

I claim:

- 1. An apparatus for collecting leaves and debris comprisng:
- a corral area with porous sides for oscillating leaves to be staged for their insertion into the apparatus;
- a chute proximate to the corral for forcing air and leaves from the corral;
- a bagging area adjacent to the corral where leaves/debris are forced into at least one bag via air pressure and gravity; and
- an air exhaust proximate to the bagging area to permit excess air to exit the apparatus.
- 2. An apparatus for collecting leaves and debris comprising:
 - a corral area with porous sides for gathering leaves and debris which are staged for their insertion into the apparatus;
 - a chute connected to the corral having a conduit for air and leaves to be blown from the corral;
 - a bagging area supporting a plurality of bags where leaves/debris are deposited into the bags via air pressure and gravity;
 - an air exhaust proximate to each bag to permit air into the apparatus; and
 - a baffled blower for blowing leaves and debris from the corral to the bagging area through the chute.
- 3. An apparatus for collecting leaves and debris comprising:
- a corral area with porous sides which allows air to pass through while leaves and debris are staged for their insertion into the bagger;
- a chute corral for forcing air and leaves from the corral;
- a bagging area where leaves/debris are deposited into the bags via air pressure and gravity; and
- an air exhaust proximate to the bagging area to permit air to exit the apparatus.
- 4. An apparatus for collecting leaves and debris compris-
- a corral area with porous sides which allows air to pass through while leave and debris are staged for their insertion into the bagger;
- a chute which pivots to the corral for forcing air and leaves from the corral;
- a bagging area where leaves/debris are deposited into the bags via air pressure and gravity;
- an air exhaust proximate to the bagging area to permit air to exit the apparatus; and
- a wheeled under carriage for moving the apparatus.

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