A01F  PROCESSING OF HARVESTED PRODUCE; HAY OR STRAW PRESSES; DEVICES FOR STORING AGRICULTURAL OR HORTICULTURAL PRODUCE (devices for topping or skinning onions or flower bulbs A23N 15/08)

1/00 Stationary apparatus or hand tools for forming or binding straw, hay or the like into bundles (baling apparatus or presses A01F 13/00; A01F 15/00; mobile binders for use in the field A01D 37/00, A01D 39/00)

1/02 . Hand-operated tools

1/04 . Fastening or tying devices

1/06 . Ties for bundles

3/00 Hand-operated implements for cutting-up straw, hay or the like (mechanically-driven straw cutters A01F 29/00; cutting in general B26)

Threshing

5/00 Hand-operated implements for threshing

7/00 Threshing apparatus

7/02 . with rotating tools (threshing cylinders or concaves A01F 12/18)

7/04 . with axles transverse to the feeding direction

7/06 . with axles in line with the feeding direction { Axial threshing machines }

7/062 . . . [with a rotating cage]

7/065 . . . [with cage sweep mechanisms]

7/067 . . . [with material-flow influencing means]

7/70 . with flails

2009/00 Threshing machines with flails; Threshing devices with flails for combines

11/00 Threshing apparatus specially adapted for maize; Threshing apparatus specially adapted for particular crops other than cereals

11/02 . for flax

11/04 . for clover or like seeds, e.g. lucerne

11/06 . for maize, e.g. removing kernels from cobs

11/08 . for palm fruit, e.g. releasing the fruit from the stalk

12/00 Parts or details of threshing apparatus (devices, other than safety devices for feeders, for protecting human beings A01D 75/20; A01F 21/00)

12/10 . Feeders

12/12 . . without band-cutters

12/14 . . with band-cutters

12/16 . . Safety devices

12/18 . . Threshing devices
Hand-operated baling apparatus

15/00 Baling presses for straw, hay or the like \{(making compressed stacks A01D 85/00)\}
15/005 . . (for conditioning bales, e.g. rebaling)
15/02 . . with press-boxes \{(A01F 15/046 takes precedence)\}
15/04 . . Plunger presses
15/042 . . (Plungers)
15/044 . . (with open pressing chambers)
15/046 . . (with press-boxes)
2015/048 . . . (Anti-return systems for the material in the pressing chamber when the plunger moves backwards)
15/06 . . with double-action plunger
15/07 . . Rotobalers, i.e. machines for forming cylindrical bales by winding and pressing
15/0705 . . (Arrangements for continuous operation)
15/071 . . (Wrapping devices (tying devices A01F 15/141))
15/0715 . . (Wrapping the bale in the press chamber before opening said chamber)
2015/072 . . . (Braking means for the film roll in balers which wrap the bale before opening the pressing chamber in order to stretch the film while wrapping)
2015/0725 . . . [Film dispensers for film rollers in a satellite type wrapper, e.g. holding and tensioning means for the film roller (the rotating arm itself A01F 2015/073)]
2015/073 . . . (Features related to the horizontal rotating arm of a wrapping device of the satellite type (features of film dispensers A01F 2015/0725))
2015/0735 . . . [Combined machines that include a press bale and a wrapping device in a further step, e.g. turning table, not in the same closed pressing chamber]
2015/074 . . . (Mechanisms for discharging a bale from the wrapping machine)
2015/0745 . . . (Special features of the wrapping material for wrapping the bale)
2015/075 . . . [Opening the pressing chamber before wrapping, and then wrapping by rotating the bale without displacing it out of the open pressing chamber]
2015/0755 . . . (Configuration of support surfaces which can move in order to rotate a bale around at least one axis while wrapping)
2015/076 . . . (Wrapping device incorporating sensors)
15/0765 . . . (Rolling bales on the ground)
2015/077 . . . [Pressing chamber formed by belts and rollers]
2015/0775 . . . (Pressing chambers with fix volume)
2015/078 . . . [Pressing chamber formed exclusively by flexible elements, e.g. belts]
2015/0785 . . . (Latching or locking means for the tailgate of the rotobaler)
2015/079 . . . (Sledge for rollers of the pressing chamber)
2015/0795 . . . [Pressing chamber with variable volume]
15/08 . . . Details
2015/0808 . . . (Balers incorporate an inclinometer)
15/0816 . . . (Devices for dispensing chemicals in bales during formation)
15/0825 . . . (Regulating or controlling density or shape of the bale)

15/0833 . . . . (for round balers)
15/0841 . . . . (Drives for balers)
15/085 . . . . (for round balers)
15/0858 . . . . (for the tying devices or needles)
2015/0866 . . . . (Clutching means for the knotting process; Bale length measuring means for triggering the clutching mean)
15/0875 . . . . (Discharge devices)
15/0883 . . . . (for round balers)
2015/0891 . . . . (Weighing the finished bale before falling to ground)
15/10 . . . . Feeding devices for the crop material, e.g. precompression devices (pick-ups A01D 89/00)
15/101 . . . . (Feeding at right angles to the compression stroke (A01F 15/106 takes precedence))
2015/102 . . . . (the pressing chamber is fed from the bottom side)
2015/103 . . . . (the pressing chamber is fed from a lateral side)
2015/105 . . . . (the pressing chamber is fed from the top side)
15/106 . . . . (for round balers)
2015/107 . . . . (Means for withdrawing knives, rotor or walls of the feeding chamber in case of plugging or congestion)
2015/108 . . . . (Cutting devices comprising cutter and counter-cutter)
15/12 . . . . Feeding devices for the ties
15/14 . . . . Tying devices specially adapted for baling presses (independent binders A01D 39/00)
15/141 . . . . (for round balers (wrapping devices A01F 15/071))
2015/143 . . . . (Guiding fingers for twines in order to avoid the slippage of twines to the sides of the bale when tying it)
15/145 . . . . (Twine knotters)
15/146 . . . . (Wire twisters)
15/148 . . . . (Monitoring the tying, e.g. mistie detectors)
15/16 . . . . Division blocks
15/18 . . . . (Endless belts, rolls or the like)
2015/183 . . . . (Construcional details of belts of the press chamber)
2015/186 . . . . (Construcional details of rollers or the bearings of the rollers of the press chamber)

Accessories for threshing machines or baling presses (loaders for sheaves, stacks or bales A01D 87/12; trailers B62D 63/03)

17/00 Straw conveyors for threshing machines or baling presses
17/02 . . Mechanical conveyors
17/04 . . Pneumatic conveyors
19/00 Devices for securing threshing machines or baling presses to the ground, e.g. for compensating for unevenness of the ground
21/00 Devices for protecting human beings for threshing machines or baling presses (in combines A01D 75/20; for feeders for threshing apparatus A01F 12/16)
25/00 Storing agricultural or horticultural produce; 
Hanging-up harvested fruit (maturing fruit
A23N 15/06; arrangements in barns for preparatory
treatment of tobacco A24B 1/02; packing or storing
hops C12C 3/04)
25/02 . Clamps; Fits
25/04 . Stacks, ricks or the like
25/045 . . (Distributing arrangements in haystacks)
25/08 . . Ventilating means
25/10 . . Shelters (; Open sheds or similar structures)
25/12 . . Racks for drying purposes
25/125 . . (Transport devices for hay racks)
25/13 . . Coverings (A01F 25/14 takes precedence)
25/14 . . Containers specially adapted for storing
2025/142 . . (Machinery for making sausage-like groups of
bales by wrapping or bagging (for bagging of
loose material A01F 2025/145)
2025/145 . . (Bagging machines for loose materials making
some kind of "sausage" on the field (making
sausage-like groups of bales A01F 2025/142)
2025/147 . . (the containers are specially adapted for storing
or drying the products in vacuum)
25/16 . Arrangements in forage silos
25/163 . . (in tower silos)
25/166 . . (in trench silos)
25/18 . . Loading or distributing arrangements
25/183 . . (Loading arrangements)
25/186 . . . (Distributing arrangements (for haystacks
A01F 25/045)
2025/20 . . Unloading arrangements
2025/2009 . . (Top unloading units for tower silos)
2025/2018 . . (Bottom unloading units for tower silos)
2025/2027 . . . (for trench silos)
2025/2036 . . . . (Cutting or handling arrangements for silage
blocks)
2025/2045 . . . . (Unloading arrangements including a
conveyor belt for transferring the material to a
hopper)
2025/2054 . . . . (Machinery for cutting successive parallel
layers of material in a trench silo (for
shredding A01F 2025/2063)
2025/2063 . . . . (Machinery for shredding successive parallel
layers of material in a trench silo)
2025/2072 . . . . (Scoops with an extracting tool mounted
inside or in the vicinity of said scoop)
2025/2081 . . . . (Hydraulic features of the trench silos
unloading devices, e.g. hydraulic circuits)
2025/209 . . . . (Manual portable tools for unloading a silo,
e.g. for cutting out a block)
25/22 . . . . Ventilating arrangements
29/00 Cutting apparatus specially adapted for cutting
hay, straw or the like (mowers combined with means
for cutting up the mown crop A01D 43/08)
29/005 . . (for disintegrating and cutting up bales of
hay, straw or fodder (for unrolling round bales
A01D 87/127))
29/01 . . specially adapted for being mounted on or drawn by
a tractor, e.g. field choppers
29/02 . . having rotating knives with their cutting edges in a
plane perpendicular to their rotational axis
29/025 . . . . (with feeding direction parallel to axis)
29/04 . . . . with feeding direction transverse to axis