CLAIMS

1. Separation-apparatus (1) for separating from a particle-stream (4) at least a first fraction with particles (3) of a first group of dimensions, and a second fraction with particles (3) of a second group of dimensions, wherein the particles in the first group generally are of smaller diameter than the particles in the second group, comprising an infeed-device (2, 10) for the particle-stream (4), a rotatable drum (5) having at its circumference (13) plates (6, 6'), each plate having a radially extending hitting surface for the particles, and a receiving area (12) for receipt of the particles of the second fraction, wherein the said receiving area (12) is provided with a conveyor (17) for discharging the particles received in said receiving area (12), ~~characterized in that~~ the conveyor (17) in the receiving area (12) for the second fraction movinges during use at a speed of at least 2 m/s, **characterized in that** distant from the drum (5) and downwardly inclined in a direction pointing away from the drum (5) is a collision plate (22) which extends at least in part above the conveyor (17) in the receiving area (12) for the second fraction, wherein the collision plate (22) is inclined at an angle of less than 45° with respect to the horizon.

2. Separation apparatus (1) according to claim 1, **characterized in that** the conveyor (17) in the receiving area for the second fraction (12) has an inclined position such that it moves the particles deposited thereon upwards to the conveyor's outlet.

3. Separation apparatus (1) according to claim 1, **characterized in that** the surface of the conveyor (17) moves at a speed of 4 m/s.

4. Separation apparatus (1) according to claim 1 or 2, **characterized in that** at the conveyor's outlet a scraper (23) is provided for removal of particles of the first fraction that stick to the surface of the conveyor (17).

5. Separation apparatus (1) according to any one of claims 1-3, wherein at the conveyor's outlet a first blower (19) is provided supplying a downwardly directed air-flow (18) for removal of particles of the first fraction that are

dragged along by particles of the second fraction, **characterized in that** the air flow (18) supplied by the first blower (19) has an airflow speed in the range 15-30 m/s.

6. Separation apparatus (1) according to any one of claims 1-4, wherein the infeed-device (2, 10) comprises a vibrating slide plate (2) that is inclined at an angle in the range 70-90° with respect to the horizon, which slide plate (2) has an edge (2') positioned above the drum (5), which edge (2') is embodied as an outlet for the particle-stream (4), and in that the edge (2') of the vibrating slide plate (2) is positioned vertically above an axis (8) of rotation of said drum (5)so as to cause that in use the particles (3) of the particle-stream (4) fall towards the drum (5) in a direction aimed towards said axis (8) of rotation, and to arrange that the plates (6, 6') of the drum (5) impinge on said falling particles (3) at a moment that said plates (6, 6') are in an approximately vertically upwards oriented position extending from the drum (5), **characterized** in that the slide plate is inclined at an angle of approximately 85°.

7. Separation apparatus (1) according to any one of the previous claims, **characterized in that** a second blower (21) providing a downwardly directed airflow is placed in the vicinity of the drum (5) for early removal to a second receiving area (11) of particles of the first fraction from the stream of particles that move away from the drum (5) after the plates (6, 6') of the drum (5), at the moment that said plates (6, 6') are in a vertically upwards oriented position extending from the drum (5), have impinged on said particles (3) falling along the slide plate (2) of the infeed device (2, 10) towards the drum (5).

~~8. Separation apparatus (1) according to any one of the previous claims, characterized in that distant from the drum (5) and downwardly inclined in a direction pointing away from the drum (5) is a collision plate (22) which extends at least in part above the conveyor (17) in the receiving area (12) for the second fraction.~~

~~9. Separation apparatus (1) according to claim 7, characterized in that the collision plate (22) is inclined at an angle of less than 45° with respect to the horizon.~~

~~10.~~8. Separation apparatus (1) according to any one of the

previous claims ~~7 or 8~~, **characterized in that** the collision plate (22) is inclined at an angle between 15° and 30° with respect to the horizon.