Basic Yarn Manufacturing Processes

Carding — Combing — drafting — twisting — winding.
As the fibers pass through these processes, they are successively formed into: lap, sliver, roving and finally yarn.
The manufacturing operation in which these stages occurred
(1)Lap to card sliver by the lading process
(2)Card Sliver to Cone sliver by combing process.
(3)Shiver to roving by the drafting, or drawing out process
(4)Roving to yarn by further drafting and twisting process.
(5)Yarn reeled on bobbins, spools or cones by the winding process.

Bending, Ending, Opening and Cleaning
(i)The cotton arrives at the mill in large bales weighing about 500 pounds / 225 kg. The compressed mass of raw fibers must be removed from the bales, blended, opened & cleaned.
(ii)Opening is necessary in order to loosen hard lumps of fibers & disentangle them.
(iii) Cleaning is required to remove trash – such as dirt, leaves, burrs, seeds, etc.
(iv)Blending is necessary to obtain uniformity of fiber quality.
(v)Blending: Mechanical bale pickers pluck thin, even layers of the matted fiber from each of a predetermined number of bales in turn and deposit them on Hooper. The fiber is mixed & passed to an opener.
(vi)Opening: As the mass of fiber passes through the openers, cylinders with protruding fingers open up the lumps & free the trash. The number & kind of cylinder, or beaters, employed depend upon the type of cotton that is being processed.
(vii)Cleaning: As the cotton is opened, trash falls through a series of grid bars. When the cotton emerges from the opener, it still contains small tuffs with about 2/3rd of trash.
(vii)This may be conveyed as a lap, which is loosely entangled mass about 1" thick and about 40" wide. Or it may be fed by chute directly to the card for further cleaning and fiber separation.