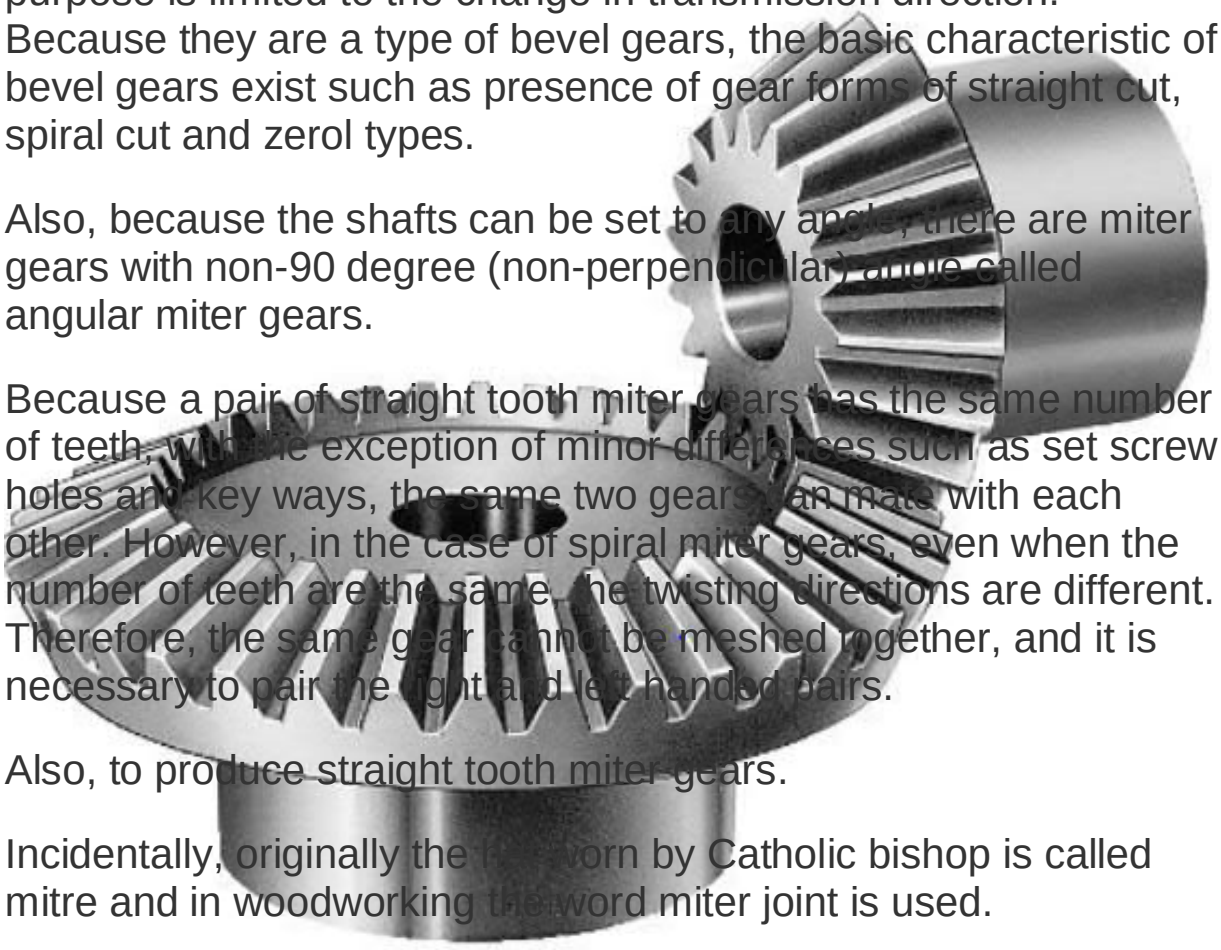
Mitre Gears

Miter gears are one type of bevel gears where the two rotational axes intersect. When speaking of narrow definition of bevel gears with ability to increase or decrease speed, miter gears do not have that ability due to the pair's same number of teeth. Their purpose is limited to the change in transmission direction. Because they are a type of bevel gears, the basic characteristic of bevel gears exist such as presence of gear forms of straight cut, spiral cut and zerol types.



Also, because the shafts can be set to any angle, there are miter gears with non-90 degree (non-perpendicular) angle called angular miter gears.

Because a pair of straight tooth miter gears has the same number of teeth, with the exception of minor differences such as set screw holes and key ways, the same two gears can mate with each other. However, in the case of spiral miter gears, even when the number of teeth are the same, the twisting directions are different. Therefore, the same gear cannot be meshed together, and it is necessary to pair the right and left handed pairs.

Also, to produce straight tooth miter gears.

Incidentally, originally the hat worn by Catholic bishop is called mitre and in woodworking the word miter joint is used.