WHAT IS CLAIMED IS:

1. A laser processing apparatus that processes a workpiece by irradiation with a laser beam, the laser processing apparatus comprising:

a holding unit including a holding surface that holds the workpiece;

a laser irradiation unit that irradiates the workpiece held by the holding unit with the laser beam,

wherein the laser irradiation unit includes

a laser oscillator,

a collecting lens that focuses the laser beam emitted from the laser oscillator, and

a foreign matter adhesion preventing unit that prevents adhesion of a foreign matter to the collecting lens, and

the foreign matter adhesion preventing unit includes

a protective film that is disposed between the holding surface and the collecting lens and has transmissibility with respect to the laser beam, the protective film being stretched between a first pulley and a second pulley disposed at substantially a same height position so as to sandwich an optical axis of the laser beam, and the protective film being supported so as

to cover a lower surface side of a laser processing head, wherein the protective film is configured to be in contact with, or spaced from, the lower surface of the laser processing head,

a first roller to which one end side of the protective film is fixed and that rotates to thereby send out the protective film, and

a second roller to which the other end side of the protective film is fixed and that rotates to thereby take up the protective film, and

a control unit configured to advance the protective film at a timing corresponding to a processed workpiece, or to a predetermined number of streets, or while the workpiece is irradiated with the laser beam.

2. The laser processing apparatus according to claim 1, wherein

the collecting lens is disposed under the holding surface.

3. The laser processing apparatus according to claim 1, wherein

the protective film is a polyolefin-based film or a polyester-based film.