

(in classes and chronologically arranged) of all Specifications of Patented Inventions, from the earliest enrolled to those published under the Act of 1852.

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#### ABRIDGED SPECIFICATIONS OF ENGLISH PATENTS.

2130. H. ATTWOOD. *Improvements in cleaning and in feeding boilers.* Dated August 26, 1861.

These improvements in cleansing boilers, consist in placing one, two, or more conduits at about the water level; the conduits are dished on their upper surface, and are perforated at intervals, while curv-

ed flanges are adapted to the sides. Similar conduits are placed at the bottom of the boiler. The improvements in feeding-boilers consist in supplying them from below, through perforated pipes extending along the length, or nearly so, of the boilers. This arrangement is for the purpose of keeping the sediment in a state of agitation, thereby causing the impurities contained in the water to rise to the surface, when it may be drawn off by the scum plate and cock. For some waters chemical agents are used, together with the above mechanical appliances.

2156. R. SHAW. *Improvements in windlasses, capstans, and other machinery for hoisting and lowering weights.* Dated August 30, 1861.

This invention consists in so constructing and arranging the several parts forming the break that it is in operation while the weight is being hoisted, and when it is raised, consequently, if the man at the handle should let it go, the weight remains suspended until the break is released; and by this means the injury and accidents resulting from the man at the handle being overpowered by the weight, or the handle breaking or coming off, are avoided. One mode of performing the invention is by applying one or more palls to the wheel on the drum or other shaft; these palls take into an internal ratchet wheel formed in the break pulley, which is surrounded by a friction clip. The details of construction may, however, be considerably varied and modified.

2171. P. TAYLOR. *Improvements in apparatus for removing the sediment from, and preventing the incrustation in, steam boilers.* Dated Aug. 31, 1861.

This consists in applying a pipe to the interior of a steam boiler, which pipe is made with a longitudinal slot or slots extending the whole or the greater part of the length of the boiler, and communicating with an off pipe in which is a discharge valve, capable of being opened and closed rapidly. The valve is of the usual mushroom shape, and in the boss or on the spindle of the valve is a fixed stud; the groove is of such an inclination that, by turning the spindle about one-half round, the valve is opened sufficiently to discharge the sediment, which enters the pipe through the slot or slots above referred to.

2195. E. SUCKOW and E. HABEL. *Improvements in machinery or apparatus for producing a strong blast or current of air.* Dated Sept. 3, 1861.

Here the patentees enclose an Archimedean screw in a cylinder, and give it a rapid rotatory motion. The screw is composed of any number of blades, which are fixed to a conical disc, and have their outer edges revolving nearly at a right angle to projections or catch-rings, fixed to, or forming part of the cylinder. When motion is given to the screw, a strong blast or current of air is produced, similar to that of an ordinary fan, but with a much more powerful effect. They also apply antifriction rollers, when desired, to work against the prepared surface or collar of the shafts in order to lessen the friction.

2298. T. MORRIS, R. WEARE and E. H. C. MONCKTON. *Improvements in batteries, for obtaining electric currents and the products therefrom.* Dated Sept. 14, 1861.

This consists in an arrangement of battery cells, whereby the plates or cells are not immersed, as is