

[This invention relates, first, to an improved block or base piece, constructed of wrought iron, and second,to a new and improved means for operating the knees of the head blocks, whereby the log may be adusted accurately to the saw, any variation in the racks or mechanism connected therewith, being duly compensated for by a very slight ad justment of parts, so that both knees of a mill carriage may be operted simultaneously and with an equal movement.]

ExTENSION.
6,759.-Josiah Kirby, of Cincinnati, Ohio, for Improvement in Machines for Cutting Bungs. Extended Sep 12, 1862 .
 ESIGN.
1,656-S. W. Gibbs, of Albany, N. Y., for Design for the
Plates of a Stove.
1.657.-F. H. Gibney, of New York City, for Design for a
Spoon and Fork Handle.

Spoon and Fork Handle.
1,658.-W. S. Hill and S. T. Reed, of New York City, for
Design for a Chess or Checker Board.
,659.-J. R. Hyde, of Troy, N. Y., for Design for a Cook's Stove.
1,660-H. I. Seymour, of Troy, N. Y., for Design for a Chair.
1,661.-N. S. Vedder and Ezra Ripley, of Troy, N. Y., assignors to N. S. Vedder aforesaid, for Design for the

## Books and Publications Received,

Card of Stamp Duties. Published for the convenience of merchats, bankers, brokers, conveyancers, attor neys, \&c., by Frederick A. Brady, 22 Ann street, New
York: This card
atlantic Monthly. Published by Ticknor \& Fields, Boston:
The October number of the Allantic is too much filled with serials for our taste,
Blackw ood's Magazine. Published by Leonard, Scott \& Co., 54 Gold street, New York City:
The last number of this able magazine contains two essays by Bulwer on action, thought and reverie, and how new theories should be
received; also, a review of "Trollope's America," and several other articles.

## patents For seventeen years.



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that raises your suspended string is the muscular power of your that ra
E. S., of N. Y.-To drive a cotton mill of 104 looms with all the accompanying machinery yon will require about 40 -horse power-to be safe you had better secure 45. To find the quantity o waterwhichwill flow out of an opening, multiply the square roo of the depth of the water by $5 \cdot 4$; the product is the velocityin fee per second. This multipiled by the area of the orifice in feet wil give the number of cubic feet per second. The depth of your open5.4 is 30 the the square rool of 5 give 20 area of your opening is 20 square inches- 072 feet, which multiplied by 29.7 gives $2 \cdot 14$ cublc feet per second. To conduct this quantity of
water through an open trunk 56 rods long with a fall of one-half water through an open trunk 56 rods long with a fall of one-half
inch to the rod, the trunk should be 16 incheswidewith the water inch to the rod, the trunk should be 16 incheswidewith the water mula, in which we have not perfect confidence. Indeed the velocity of water flowing through canals or trougbs is affected by so many of water flowing through canals or trougbs is affected by so many
circumstances that a large margin for errors in any calculation circumstances that a larg
should always be allowed.
. C. H.. of Conn.-Prescott's work on "The Electric Telegraph," published by Ticknor \& Fields, Boston, is an admirable Telegraph," pub'isherle bectro-Meiallurgy" is an excellent work ; we
treatise. Smee's "Election treatise. Smee's "Elect
havenot seen Walsher's.
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S. L., of N. Y.-An overpressure of heated air in a boiler will explodeit just as certainly as an overpressure of steam.

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