



Fig. 1.—Application of the Self-Coiling Venetian Shutters.

### SELF-COILING VENETIAN SHUTTERS.

(FOR FIG. 2, SEE PAGE 38.)

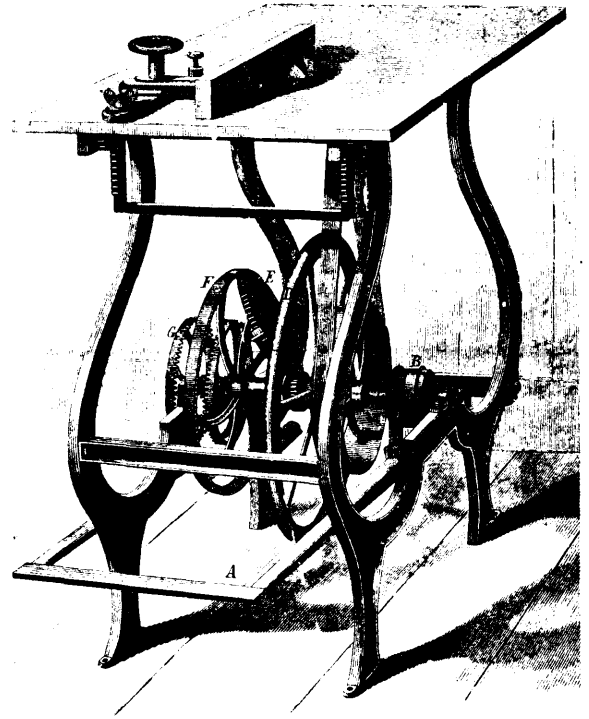
The engraving (Fig. 1) which accompanies this article represents a solidly built summer residence, the piazza of which is provided with Wilson's self-coiling and rolling Venetian shutters intended to show the great advantage to be derived from such an arrangement, as it enables one at once to convert the piazza into a private room, keeping out sunshine, heat, and winter cold, and at the same time perfectly safe against burglars.

The slats of these shutters are  $\frac{3}{8}$  of an inch thick; for inside blinds  $\frac{1}{2}$  of an inch is sufficient, as for these such great strength and durability are not required as for outside blinds. It will also be seen how the basement door and windows may be provided with similar blinds.

These blinds, of which we represent a section in Fig 2, are an admirable substitute for those more ordinarily in use for windows, vestibule doors and piazzas, and are as elegant as useful. They adorn a dwelling-house, and are of no mean effectiveness as an obstacle to burglars. They are durable, simple in action, and are operated with ease and rapidity. They are composed of diamond-shaped slats, strung together on metal wire or bands, leaving a space between each slat, so that the air and light can penetrate freely. They coil on spring rollers, above or below, can be fitted inside or outside, and can in either case be worked from within. It is often a trying experience to close the average outside blinds in a driving rain or snow storm. All such difficulties are obviated by the use of these rolling blinds. When drawn down and fastened, they cannot be opened without violence from the outside, forming an effective protection against sneak thieves.

We need not add that if made of steel, they offer the utmost protection possible against burglary and fire, and we only wonder that more persons able to pay for such improvements do not apply them to residences and stores. But we are convinced that the advantages have only to be made known to them to cause the demand they deserve, and we gladly contribute our share in diffusing this knowledge.

They are manufactured by Messrs. Wilson & James, 68 Beckman street, New York.



### FOOT-POWER CIRCULAR-SAWS.

The adjoined engraving represents one of the most effective circular-saw machines that can be driven by simple foot-power. The table can be raised and lowered so as to make the circular-saw project more or less over its surface, which contains the usual movable guide. A smooth fly-wheel D, moving with great velocity, secures a considerable momentum, and so becomes a store of power able to overcome temporary resistances. The treadle A is connected with the axis by means of a short piece of belt running over a pulley B; one end of this belt is attached to the treadle and the other end to the pulley. The pulley turns loose on the axis, but has a pull and ratchet, so as to turn in one direction only, and a weight to pull the pulley back and the treadle upward, so that without the latter it always causes a forward motion of the axle and fly-wheel, and has no dead point. The shaft runs loose through the centre of the fly-wheel and is connected with the gearing F, which works the oblique wheel E, and this the small cog-wheel attached to the fly-wheel, which runs thus with a far greater velocity than the pulley B. The belt running over another pulley runs the saw, as seen in the engraving. By this arrangement the saw makes 102 revolutions for one of the treadle, so that 40 steps per minute give 4,080 revolutions in that time. High speed gives better, square, well-lined, and smoother cuts, as all experts know.

There is no doubt that this combination economizes the power applied, and that this saw is especially adapted for light work, and by raising the top properly for rebating, grooving, etc., with certainty and dispatch.

The cross-cut and miter gauges are pronounced very superior and perfect. The size of the table is 27 x 42 inches, the weight of the machine 360 pounds, and the price, with two saws, \$110. The cross-cut and miter gauge is extra, and costs \$15, while a boring apparatus, costing \$10, may be easily attached.

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