

#### Corset and Bag Weaving.

Our engraving representing Lyall's great exhibit of looms at the Centennial Exhibition, shows in the center the famous corset-weaving loom, and at the extreme right the bag-weaving loom. The first is a most remarkable combination of the principle of De Gennes's power-loom with Lyall's positive shuttle-motion and Jacquard's perforated cards working the warp—a combination of the three great and leading inventions in

what may perhaps be considered as the most useful of all mechanical arts—the art of weaving.

Four webs of corsets are woven at once, in perfect form, all precisely alike and yet possessing every gore, every gusset, every welt formerly laboriously put in by hand-work. Five corsets per day was the

only a certain portion of the warp is kept in play, and through this only the weft passes. As the shuttle then does not pass through the whole warp, but over a portion of it, it would necessarily seem that a slack loop of weft, corresponding to that portion in length, would be left. This is provided for by a let-off device in the

York, where 400 hands are employed and 4,000 corsets daily finished, of all sizes, from the small miss' corset to the largest worn by the stately matron.

The other remarkable machine, the bag-weaving loom, deserves special attention. It is the latest novelty from the brain of Mr. Lyall; here also there are



THE LYALL LOOMS IN OPERATION.

extent of the labor of the German weaver; this wonderful invention makes eighty-four in an infinitely superior manner in the same period of time. The Jacquard cards govern the quantity of warp to be kept in action, so that when, for instance, the parts which fit about the protruding portions of the body are to be made,

shuttle, so that the thread passing to and fro (after leaving the bobbin) several times between extended leaf springs, is always held taut, and thus only the exact amount required for the pick is allowed to escape.

We will only add that 100 such looms are in operation in the factory at 545-549 West 23d street, New

York, where 400 hands are employed and 4,000 corsets daily finished, of all sizes, from the small miss' corset to the largest worn by the stately matron. The other remarkable machine, the bag-weaving loom, deserves special attention. It is the latest novelty from the brain of Mr. Lyall; here also there are

has been attained the two webs are united in a single one and this closes the bag. Then the machine separates the webs again, and the weaving is double. By this method the bags have only to be cut apart, and are then ready for use. It is evident that with this machine the whole labor of sewing the bags is saved, as it will deliver the bag ready-made for the same price that other machines will only deliver the material to make the bag from. There is also another incidental advantage: as the bags are woven double, the loom has only half the width that would be required for weaving the single material, which is a saving in the first cost of the loom as well as the space it occupies in the mill.

That this method of bag-weaving will supersede the old way of sewing bags is evident, for besides the lower price, a bag woven in one piece is far stronger than a sewed one, as the seams are the places where bags usually give out.

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