

For the Scientific American.
Mosaic Tapestry, Copying Paintings, &c.
 We will proceed to describe the second part of the invention, which relates to another mode of manufacturing carpets, rugs, and other napped fabrics, which differs from that before described, but is capable of being so worked, as to produce very ornamental surfaces, and may be made to resemble tapestry and highly finished paintings, depending on the taste of the person who works the pattern as will be hereafter explained.

FIG. 5.

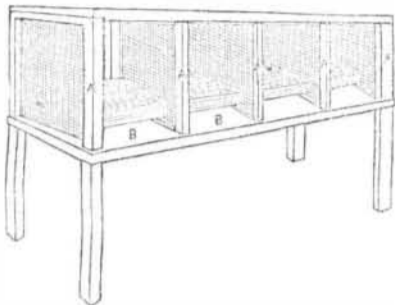


Fig. 5 (which was inserted last week by mistake,) represents a figure or apparatus suitable for working the pattern when performing the second part of the invention. A A A A are quadrangular frames affixed on the board B B. Over each of the end frames A, is evenly stretched canvas, such as is used for worsted work, in such manner that the canvas at each end, shall be stretched to coincide one with the other as nearly as possible. The person who works the pattern is to proceed as follows;—

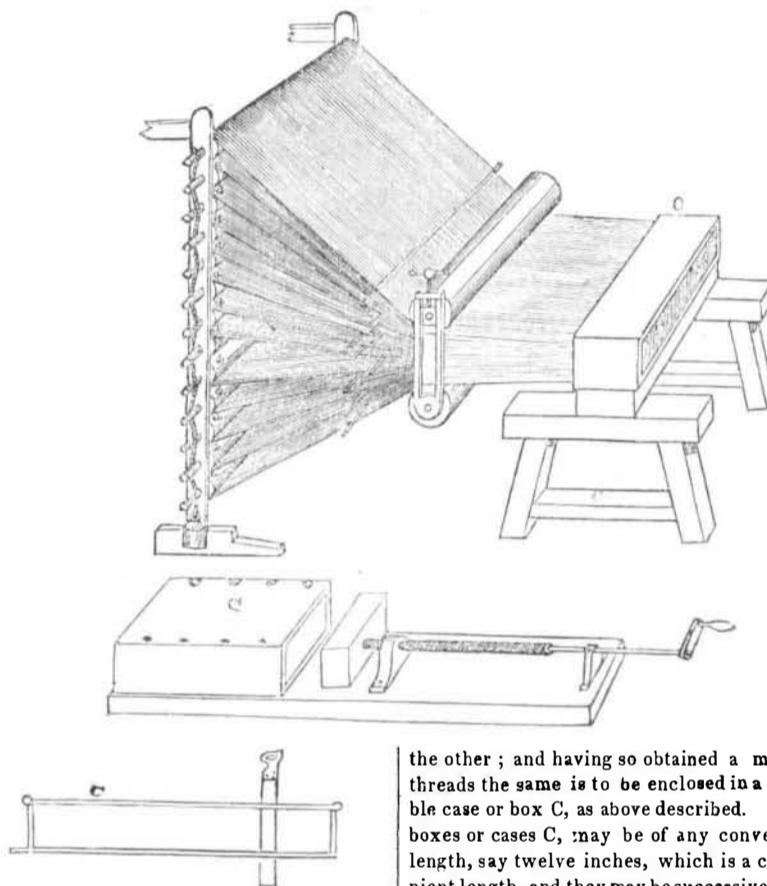
By means of a needle he draws the worsted, wool, or other thread through a hole or mesh in the canvas at one end, and through a corresponding hole in the canvas in the other frames A, commencing the work at the lower corner hole, and working successively through each hole of the lower rows of the surfaces of the canvas; then the next above, (taking care that the threads between the frame A, lie even and smooth, and are drawn equally tight,) and the operation is to be continued till the threads have been passed through all the holes when there would be a long quadrangular mass of threads, which is to be encompassed with a box or case C, (see Fig. 6.) open at both ends; and having so encompassed and secured the mass of threads, the same may be cut away from the canvas or fabric, and a piston or rammer inserted into the box or case C, which, fitting closely on all sides, will, when desired, force out portions or lengths of the yarn, in order that the same may be cut off after it has been combined by cementing it into a fabric, as will be hereafter more fully described; and the ends of the fibres in the box C, against which the ram is to press, should be cemented to the ram and permitted to dry before commencing to force out the mass of yarn by the ram.

Above, we have given our readers an account of the mode of working, without reference to the pattern: and we shall now proceed to show how a design or pattern may be worked in the frame, and subsequently transferred and subdivided into a multitude of surfaces, or portions of surfaces. We would first remark, however, that the canvas or fabric used on the frames A should be fine or coarse according to the degree of fineness of the yarn used, whether of worsted, wool, cotton, or other fibrous materials or mixtures thereof and the pattern or design is to be worked or executed with the needle, by counting the meshes, and drawing through colors according to the order of the pattern set before the person performing this part of the work, drawing the thread or yarn through each of the frames, as has been above explained: or it may, in some patterns, be performed by marking the canvas. Thus, supposing that the pattern to be produced was a red animal on a white ground, and that the shape of the animal was marked on the canvas, the person working would continue to draw white yarn through the canvas so long as the lower part of the frame was to receive the ground, then with white and then with red, according as the portions of the row of meshes or holes, of the canvas across from side to side was ground or pattern, and so on till all the holes were worked through, and the pattern com-

pleted. Having performed this operation, he would surround the warp with the box or case, C, as above explained; the boxes or cases, C, being formed in parts capable of being put together readily, by screws or otherwise. We have chosen this simple pattern in order to give a clear description of this part of the mode of working as practised by the ingenious inventor, but from the foregoing description a person will readily be able to perform other patterns, of varied degrees of intricacy depending on the taste of the design, which should be drawn on paper such as is now used in working worsted work on canvas; that is, by having the colors in small equal-sized squares, as is well understood, and consequently forms no part of the present contrivance, and then, by counting the meshes or

interstices of the fabric, draw in threads of the color required, and as may be marked in the design paper. Or in some cases the pattern may be marked on the canvas. When then the frames are full, a case C is applied, just sufficient to embrace the mass of threads and retain the same closely together in such manner that in forcing the threads through the case in which they are included, they will be prevented getting out of the correct position. Hence each successive portion or slice cut off from the end of the case, will be a repetition of the same pattern, which being combined together will produce a carpet or rug, or any other napped fabric, depending on the nature of the fibrous materials employed, and the mode of getting up the same.

Figure 6.



There are other methods by which masses of yarns or fibres may be obtained within cases or boxes C, and worked therefrom according to the invention. We will now explain two other modes, slightly differing from each other and from the one above explained; but by both the object of this part of the invention may be obtained, whereby a mass of yarns or threads, or such like combination of fibres may be produced in masses, in suitable cases or boxes, and allow of a succession of cuts or slices being successively taken therefrom in order to produce successive surfaces, or portions of surfaces, which being cemented before cutting, will form the nap of fabrics.

Fig 6, represents a perspective view of an apparatus or machine wherein a number of warp rollers a a a, each having wound thereon threads of any suitable fibre, according to the fabric desired to be produced, the warp rollers being equally weighted. Each layer or warp is made fast to a rod, which keeps the layers of threads separate (as shown in the Fig.,) and correctly placed, one warp above

the other; and having so obtained a mass of threads the same is to be enclosed in a suitable case or box C, as above described. Such boxes or cases C, may be of any convenient length, say twelve inches, which is a convenient length, and they may be successively cut from the body of warps, taking care that before cutting off one box or case, or more, securely encompass the body of threads, in order to hold them securely, the cut or slice being made between the cases or boxes by a sharp thin knife, or such suitable razor-like instrument. Each of these boxes or cases C, will then be worked off by having suitable pistons placed, and forced through them, as above explained, or in cases where the length of nap will allow of it, the cases or boxes C, may be made of parts, each only as deep as the intended nap. Then, in order to cut off each successive layer or slice, Gutta Percha, India-rubber, or other suitable cement should be evenly spread over the external ends of the body of warps. In order to cement all the ends together, a slice and case or box C, may be cut off, starting with several such narrow cases, and applying one around the yarn as one is cut off, in order to retain the nap secure, the cases C being hinged or otherwise.

GILROY.

Damp Winds of Buenos Ayres.

To the north of Buenos Ayres is a very marshy district, while to the south-west lies the great chain of the Andes, separated only by the dry plains of the Pampas; and according as the wind blows from one or the other of these quarters, the effects are very remarkable. By the time the north wind reaches the city, it has become so overcharged with moisture, that everything becomes instantly damp, books and boots become mildewed, keys rust even in the pocket, and good fires are necessary to keep the apartments dry. The effects produced in the human body by this humidity are a general lassitude and relaxation, opening the pores of the skin, and inducing great liability to colds, sore throats, rheumatic affections, and all the liabilities of checked perspiration. As

a safeguard against this state of things, the inhabitants wear woollen clothing even though the weather be very hot; and although Europeans would prefer wearing cool cotton clothing in such a climate, they soon find that the native inhabitants are right in the plan which they pursue. This damp wind of La Plata seems to affect the temper and disposition of the inhabitants. The irritability and ill-humor which it excites in some of them, amounts to little less than a temporary derangement of their moral faculties. It is a common thing for men to shut themselves up in their houses, during its continuance, and lay aside all business till it has passed; whilst among the lower orders it is always remarked that cases of quarreling and bloodshed are much more frequent during the north wind than at any other time. In short everything

is deranged, and everybody lays the fault to one source, 'Senor es el viento norte!' 'Tis the north wind, sir!' Even murderers are said to lay to it, the blame of their foul deeds. No sooner, however does the South wind, blowing from the dry and snowy summits of the Andes, than health, comfort, and peace are restored.

Physicians attribute, and with reason, the prevalence of many diseases to these different states of the atmosphere. Thus moist air gives rise to bilious affections, and in some localities and seasons, to agues; dry sharp airs again, are inimical to all disorders of the chest and lungs. An irritable state of the nervous system, and even temporary insanity, may also occur from extreme conditions of the surrounding atmosphere.

American Rural Life.

Many thousand farmers in New England and other states, rear large families, pay all their debts and taxes promptly, live independently, well clothed and comfortably housed and provided for, and lay up money, on farms of fifty acres. With them there is a place for everything, and everything in its place.— Their horses and cattle, tools and implements are attended to with clock-like regularity. Nothing is put off till to-morrow, that can be done to-day. Economy is wealth, and system affords ease. These men are seldom in a hurry, except in harvest time. And in long winter evenings, or severe weather, which forbids employment out doors, one makes corn-brooms, another shoes, a third is a carpenter, cooper, or tailor; and one woman spins, another weaves and another braids "Palm leaf hats." And the families thus occupied are among the most healthy and cheerful in the world.

A rural life is not only the most happy and virtuous, but the most comfortable. Rural villages combining all necessary manufacturing employments, is the very soul of our Republic. A machine compact, cheap and simple for spinning in a family to equal the throstle or mule, and a loom for weaving like Claussen's in every farm house, would soon make an end to large cities. What does the most wealthy man get for all his riches but food and clothing, and could clothing be made by some cheap and simple machine in every family, what great resources would every farmer of fifty acres possess within his own household.

French System of the Organization of Labor.

The Government is to take possession on its own account, of all establishments about to suspend work, the present proprietors preserving their rights, which are to be converted into bonds bearing interest, secured on establishments, and reimbursable in money. The persons employed in these establishments are to be put on a new footing. The workpeople will form an association, will elect the directors of the works, and will fix the amount of wages, or the share to which labor is entitled in the profits. The share being determined, the collective wages will be distributed among the workmen individually, by the Council of *travailleures*, according to proportions open to discussion, but which the Government Commission thinks ought to be in equal parts. The produce, after deduction of the wages, is to be formed into a general fund, to be divided into four parts. First, a quarter for the sinking fund of the capital belonging to the proprietor with whom the state made the bargain. Second, A quarter for the establishment of a fund to be set aside for the support of old men, the sick, wounded, &c. Third. A quarter to be divided among the workmen by way of bonus. Fourth. A quarter for the formation of a reserve fund. Beside this M. Louis Blanc declares that it will be necessary to unite workshops belonging to the same branch of industry, but placed in the same conditions; and to guarantee the interests of the consumer as regards the quality, and the lowest possible price of the produce.

A strange accident has occurred at Cardiff, Scotland. A schooner lying in one of the docks was blown almost to pieces by her cargo of coals having generated a gas which ignited from a candle which one of the crew was using. Several men were killed.