staring us in the face; by reason of the presence of the superintendent, however, we march into this *sanctum* and see the practical operations there. The workmen alone are excluded from this room; visitors accompanied by the authorities are at all times allowed access to it, as they are to all the other departments within the building.

It will be palpable to any one that this department requires much experience with the subject, and great business integrity, for into the hands of these two men are committed the reputation, in a great degree, of the Company's manufacture. No matter how well made they may be, primarily, if the adjustment is bad the machine is unsatisfactory in its operation. The machines are sewed with and tested in every way to prove them, and if they fail in any one particular, the inspector opens a little door in his apartment and thrusts the machine out with its fault affixed to it written on paper. No words pass on either side, and the affair seems quite an inquisitorial process. If every part works harmoniously, the piece of cloth that was used in trying the machine by sewing, is left on the plate with the thread still through it, both above and below, remaining in the needle. This prevents any suspicion on the part of purchasers that the piece was ingeniously manufactured for business purposes and then attached to the Wheeler and Wilson machine. It is almost superogatory to say in concluding this division of our article, that none but the best materials are used. The steel for the hook and shaft (it being all in one piece) is English, the cast iron is American, and the wrought iron is also native, from Ulster county, one of the finest brands in the world for tenacity and integrity of fiber.

It is with much regret that we pass, with only a slight mention, the several branches of decorating the machine, of silver-plating, and the foundry and blacksmith departments. In the artist's rooms we saw several machines most beautifully finished in gold and pearl, and indeed, in all the different trades and operations carried on within the workshop, such as cabinet-making, the foundry, the japaners, finishers, decorators, blacksmiths, adjusters and needle makers, matters of new and striking interest presented themselves. It is only left us in concluding our article, to remark upon some of the most noticeable features of this vast manufactory. These are the cleanliness, order, and good discipline which prevail, and also the system of gages, and the thoroughness and utter fidelity throughout of the different attachments of the sewing machine with relation to each other. Such a complete and perfect principle of accuracy as the gages used secure to the Company has never fallen under our notice before. We have seen many shops where perfection was supposed to be the rule, but it was so far from being the case that any irresponsible person altered the drills, or rimers, as best suited his own sovereign pleasure. Of course, where such departure from established rules occur, the routine once broken is never re-established. The perfect good feeling and mutual respect co-existing between the superintendent and the employes, was not the least agreeable part of our visit. And for one we can bear witness to gentlemanly qualities on the part of our guide, to whose modesty we hope we shall not do violence, if we mention his "initials"—Mr. Perry.

It is remarkable also, to see a machine shop where no files are used; we mean by this, none in comparison to what are generally consumed. The various tools do all the work without further finishing, except such as is given to them by emery wheels and the operations. Those who have seen Messrs. Wheeler and Wilson's invention need not be told how beautiful that is. Near the factory is a beautiful brick engine-house which shelters a fine steam fire-engine, called the "Seamstress," one of the handsomest pieces of workmanship we have ever seen, belonging to the Company and manned by its employes. A brass band and drum corps, recruited from the 320 men in the Works, discourses music of an excellent quality.

We leave the factory, but cannot throw off so soon the impressions which have fixed themselves upon us during our visit. To look upon the long row of workmen, intelligent, well to do, and industrious, gives one new ideas of the value of well-directed labor. Among the contractors are some who have made fortunes by their own industry and ingenuity. One of these persons was pointed out to us, who made his drawings for new machines so perfect that the men constructed these directly from the design; and if the tools were found inoperative or useless, the defect was through some radical fault, not in any want of precision in the drawing.

It has been remarked and lamented by various writers that the romance of the seamstress or sewing woman's life has been destroyed by the introduction of machinery. If, in speaking of romance, it is intended to recall dark and cold garrets, fireless and foodless rooms, scanty and insufficient raiment, and starvation and temptation to nameless vice generally, then we fully agree with those poetasters, who deplore the loss of their occupation, that the gloomy pictures which we have mentioned are among the past. Aladdin wore a ring upon his finger, which caused, when he rubbed it, a fierce genii to appear who gave him sundry and manifold possessions. But what was Aladdin and his swarthy slave to our modern servant, who performs tasks with an ease and celerity that would have made the homely old ogres in ancient story stretch and strain their mighty sinews in vain? It would be a fine fancy to suppose all the material operations of nature suspended for awhile, and to let sound cease, and the roar and rush of clashing humanity still for a time its turbulence. Then from the remote parts of the globe, nay even from the borders of the desert, let the sewing machines begin their song; say, what theme could be like that? No English lark, soaring at day dawn from the green bosom of the fields, trills forth such strains; for the bird's hymn is but the natural impulse which the earth's bounty suggests, while the whir of the sewing machine tells of the power and strength of the human brain. It boasts of the attributes imparted to it, and carries conviction to every hearer, that, through the steady pursuit and triumphant achievement over great obstacles, the sewing machines have won their way in the world until they stand almost as new mechanical forces.

We cannot imagine anything more capable of being wrought into an original and beautiful romance than the invention and results of the sewing machine. By the fountain in the desert the Bedouin may fill his water-skins, if he chooses, whose seams no longer let through the precious fluid. The Turks in their lethargic sittings may band their dusky foreheads with turbans white and fair with pearl-like stitches; or away through the tall grass of the Western prairies, the horseman flies like the wind, with the scarlet blanket streaming from his back, bound and hemmed by the Wheeler and Wilson sewing machine. The contemplation of its resources opens at once to the reflecting person a long vista of delightful fancies upon which we should like to dilate at length. Let us, however, close our article with the assurance that whatever old associations have been removed by the use of the sewing machine—the good wife sitting at her fireside with the slow-plodding needle, or the maiden at her lattice singing over her embroidery—the loss has been more than repaid by the increased benefit to mankind and the great human family, throughout the habitable globe, by increased comfort as well as great pecuniary gain.

To the able and indefatigable President of the Company, Mr. Wheeler, we are under great obligations for facilities afforded and much valuable information, as also for personal courtesies, to do justice to which type are wholly inadequate.

VALUABLE RECEIPTS.

Cider and Other Wines.—When cider has fermented for about one week in a cask, add half a pound of white sugar to every gallon; then allow it to ferment further until it has acquired a brisk and pleasant taste. An ounce of the sulphite of lime is then added for every gallon of cider in the cask, and the whole agitated for a few minutes and then left to settle. The sulphite of lime arrests the fermentation, and in the course of a few days the clear cider may be poured off and bottled, when it will retain the same taste that it had when the sulphite was added. About an ounce of the sulphite of lime added to the gallon of cider in any stage of fermentation will preserve it from further change. A sparkling cider wine is produced by the mode described. The following is another method of making cider wine:—Take pure cider as it runs from the press and add a pound of brown sugar to every quart, and put it into a clean cask, which should not be filled to within about two gallons of the top. The cask is then placed in a moderately cool cellar or apartment and the cider allowed to ferment slowly by the bunghole being left open until it has acquired the proper taste and sparkles when a small quantity is drawn. The cask is then bunged up tight.

We have given these receipts for what they are worth, because they are followed by many persons making wine artificially from cider, but a real pure and first-class wine cannot be manufactured by the use of cane sugar in vegetable juices. It is a remarkable fact that currant, cider, grape and other wines that are made by adding common cane sugar to fruit juices are very similar in taste—the flavor being what is called "smoky." This is due to the fermentation resulting from cane sugar. The vinous fermentation of the pure juice of the grape is due to grape sugar, which is entirely different from that of the cane.

Grape wine should be allowed to remain for a long period in oak casks after it is made, before it is bottled, otherwise it will be comparatively sour to the taste. This is owing to the great quantity of the tartrate of potash in the juice of the grape. When standing in a wooden cask the tartrate is deposited from the wine and adheres to the interior surfaces of the vessel, and it forms a thick and hard stony crust called "argol." This is the substance of which our cream-of-tartar and tartaric acid are made. In its crude state it is employed by silk and woolen dyers in producing scarlet, purple and claret colors in conjunction with cochineal and logwood. This explains the cause of wines becoming sweeter the longer they stand in casks in a cool situation.

Wines may be made of the juice of the sorghum cane by permitting it to ferment for a short period in the same manner as has been described for cider, then closing up the cask tight to prevent access of air. The fermentation of all saccharine juices is due to the combination, chemically, of the oxygen of the air with some of the carbon in the sugar of the juice. A small quantity of alcohol is thus generated and absorbed by the fermented juice. Carbonic acid gas is also generated; when absorbed by the liquid and retained under pressure this gas imparts the sparkling property to wine. When the saccharine juices are undergoing fermentation they must be tasted frequently for the purpose of arresting the fermentation at the proper stage, because there are two stages of fermentation, called the vinous and acetous. The first is that in which alcohol is produced; the second vinegar. Many artificial wines have a slight vinegar taste which is caused by allowing the fermentation to proceed a little too far. These hints will be useful to those who prepare light domestic wines. These are now made very generally, and are held to exert a favorable influence in many cases of dyspepsia.

Ointment for Chapped Hands.—Take sweet oil, 3 ounces; spermaceti 4 ounces; and pulverized camphor, 1 ounce. Mix them together in a clean earthenware vessel by the aid of gentle heat, and apply it warm to the hands night and morning. Another very good ointment for chapped hands is made with a little fresh newly-churned butter and honey.

Sulphurized Oil for Wood.—M. Lapparent, inspector of timber for the French navy, states that he prepared a paint for preserving timber composed of linseed oil, sulphur and manganese, which was found very effectual. The flowers of sulphur were stirred into linseed oil in about equal quantities, by weight, and about twelve per cent of the oxide of manganese added. This was applied to some oak logs which were buried in a manure heap for six months, when the wood was found to be uninjured—no fungi were formed upon it. Unprepared wood subjected to the same treatment was covered with fungi.

Decline in the Price of Rags.—The Boston *Journal* says:—"Rags are going down. On Wednesday they fell two cents, and greater declines are threatened. The amount of paper stock which the present high prices has brought forward is immense. Old paper has fallen to four cents a pound, and one party in this city, who has been buying very largely, has stopped purchasing, having now over 50,000 pounds on hand. Those who are hoarding their rags or old paper had better sell at once."