Scientific American.

New Method of Application for Artificial Heat instantaneously, also for roasting coffee, &c. I wish to propose to those interested in the the ironing of dry goods by its use. matter, the application of an agent which has never, at least to my knowledge, been used for it may be applied with advantage are the domestic purposes, viz., superheated steam. baking of bread, biscuits, crackers, &c., the machines is, they are forever out of "kilter," Everybody is well acquainted with the defects of the present modes of warming buildings, of British or starch gum, which is now done by stalks of our large corn here in the West. Let and cooking. There are three methods of ac- roasting the starch in a kiln, and the distilling us have a corn-stalk cutter, gentlemen, which complishing the first object : 1. The direct or subliming of certain chemicals, such as suluse of fire in stoves, grates, &c. 2. Hot air phur, vermilion, calomel, &c. It will be perfurnaces. 3. The use of a heated material, ceived that, although fit to use in the way prosuch as steam or hot water, circulated in the posed above, stame opens a wide field to inventbuilding through a series of pipes.

The first method—which is the most common, and, in a great many instances, the only one ever applicable,-is also the most defective in regard to the expense of fuel, improper and irregular heat, trouble and dirt, danger from fire and injury to health.

buildings, is less objectionable. The frequency white flannel, and the property possessed by of destructive fires caused by defects in the the one over the other, which prevents the red flues, is proof sufficient for this assertion, not "fulling up" like the white. to speak of the nature of the hot air (so-called) mostly composed of noxious gases, deprived of the necessary dampness.

of the doors and windows.

be done away with by the use of steam, heated especially when hot; and so does the ammoto a sufficient degree. By leading steam from | nia given off in perspiration. The changing a boiler into a coil of pipes placed in a furnace, of lac red flannel to a crimson color is a good it (the steam) acquires a very high tempera- | test of the neutralization of the muriate of tin ture, and its nature and properties differ entirely in the flannel. Strong warm soap suds, withfrom the common or wet steam; it becomes out rubbing of the flannel, will not full it up, some persons have given it the name of stame. remove the grease and dirt without rubbing, This remarkable agent has been applied with as recommended by the SCIENTIFIC AMERICAN. great success in several operations in manufacturing chemistry, such as the treatment of oils of tin-1 lb. of it to 10 lbs. of flannel-it will and the distilling of fats for the manufacture impart to it the same negative fulling property of candles, and in other cases where the ob- that it imparts to lac red flannel. The muriject is, in addition to the exclusion of air, a ate of tin can be purchased for ten cents per perfectly regular heat; it is capable of many pound, therefore its use for the boiling of white other uses, not thought of at present. When fiannel will not involve much expense. If heated to a sufficient degree it is able to set a white flannel becomes yellow when boiled in piece of wood or other combustible substance the muriate of tin, it is a sign that the flannel on fire, when it comes in contact with it in the was not previously deprived of its grease or presence of air. The method I would use for oil, and that it contained sulphuretted hydroits application to the warming of buildings, is gen; or that the acid itself-the muriate of to distribute it somewhat in the manner of gas, tin-contained sulphuretted acid. This I have that is, by iron pipes encased in a fire-proof found to be the case with common muriatic covering, with a branch for each room, fur- acid, which I always strain through a woolen nished with a jet and a faucet, and this jet cloth before using. opening into a drum, or sort of stove, of any suitable shape and size, combining ornament and sweating, become a dark crimson color, with a large heating surface. The drum should | by the discharge of the muriate of tin, if a litbe provided with a tube, rather smaller than a tle of the latter be added to hot water, and the common stove pipe, leading into the chimney flannel steeped in it for an hour or two, the flue, for the double purpose of carrying off the color will be restored, or greatly beautified. waste steam, and creating a ventilating draft. The perfect regulation of the heat would be easy, by means of the stop-cock, so as to admit more or less steam, and could be secured the red lac dye used forflannel, which prevents by suitable openings in the drum, which could it fulling up like white flannel, the common be opened or shut at pleasure. It will be perceived that, in addition to a very regular heat, negative fulling qualities of red flannel dyed no noxious gases would be carried into the with madder, must be wrong. The method rooms, a perfect ventilation would be secured, described in the above for restoring the color and no undue dryness of the atmosphere would of common red flannel is correct, and may be ever take place. The boiler and heating ap- very useful to many of our readers. Military paratus might be placed outside of the house, men who wear scarlet uniforms, can remove and the danger of fire from these be thereby black iron, or dark ammonia stains from their obviated.

appear strange to persons unacquainted with A wine glass full of the muriate of tin added it, but from actual experiment I am enabled to to a pint of hot water will be about the right state that it is the most perfect means of per- strength to use. When the spots disappear forming all the operations of cookery, including from the cloth, the dilute acid must be abbaking, roasting, broiling, and frying, besides sorbed from the coat, and the spots so treated boiling, and that by exceedingly simple apparatus. For instance, let the hot steam be can easily be done with the sponge. When conducted into an oven of the necessary size, squeezed in the hand, and then applied to the supplied with a waste pipe to carry off the coat, the sponge will absorb the spirits from Delta, relating to the above cotton, will be of vapors, the supply always to be regulated by the cloth, and vice versa. means of a faucet; and it is hardly possible to

MESSES. EDITORS-Under the above caption An apparatus might easily be contrived for

Among the manufacturing purposes to which roasting of coffee and cocoa, the manufacture ors for improvements and new applications. LOUIS BONNET.

New York, Jan. 1856. (For the Scientific American.)

Treating Flannel to Prevent it from Fulling. Being a constant reader of your valuable

journal, I desire to present a few remarks on The second, although much better for large the article on page 134 relating to red and

Common red flannel is colored with the mudistributed through the building, which is riate of tin and the laca insect, as was described in last volume SCIENTIFIC AMERICANvery seldom with cochineal. This "tin acid." The third system-that of steam or hot wa- when used in coloring, changes the property of the different kinds of horse-powers all put to- of the line mentioned, and between both, where ter pipes-would be the most perfect, but for the wool-the metal destroys the felting propone circumstance : it does not produce venti- erty of the wool-it flattens or kills it. Murilation, and the renewal of the air in the rooms ate of tin has a strong affinity for oxygen depends entirely upon the accidental opening therefore all colors dyed with muriate of tin as a mordant, are faster than those which give Now, in my opinion, all these defects could off oxygen. Soap suds neutralize this acid, what is called "dry," or "hot steam," and nor change its red color much, and yet it will

If white flannel be boiled with the muriate

If red flannel shirts, by frequent washing E. C. H.

Lake Village, N. H., January, 1856.

[If it is the tin in the mordant, or spirits of opinion in the rural districts respecting the coats by using some muriate of tin in hot wa-Its application to cooking purposes might ter, and applying it to the spots with a sponge.

Whether our correspondent is correct or not conceive the perfection with which a piece of in relation to the effects of the muriate of tin | lot of this article, at rather more than the premeat or any other substance can be roasted in being the preventive for the fulling of flannel, vailing prices, seems to be all the attention it this way, all danger of burning any part of it his hints are very useful, and will no doubt receives from the public. Many persons have being completely prevented. It may also be lead to experiments which will determine the an idea that it is much less productive than the

Machines Wanted by Farmers.

MESSRS. EDITORS-In the first place I want a corn stalk cutter: I have never yet found one having sufficient power and simplicity of construction. The universal fault within these -they are not strong enough to encounter the is simple, powerful, and durable; which may be worked by hand or horse power, and I will warrant any man a fortune.

Another thing I want, is ironfeeding troughs or boxes, for horses and cattle. Wooden feedboxes need cleaning every other day to keep them perfectly sweet, when meal or shorts is fed twice a-day. It is quite a task to wash out thirty feed boxes three times a week, and rains and winter frost. It was well worked a task which might be avoided could we but throughout the season with three hands, includhave these necessary appendages made nice and light, of cast-iron. Pig troughs of cast iron have been in use for many years.

But, most of all, I want a cheap and simple steam engine. If the steam engine could be kinds abound in Russia. Salt is found in vamore to be. FARMER.

Chicago, Ill.

Blucing White Paper.

A great deal of letter paper has a blue tinge. and this shade seems to be preferred by most persons. In a work called "Herring's Paper and Paper Making," the practice of blueing paper pulp is stated to have had its origin in of the Ural Mountains, and on the Don, a vast a singularly accidental circumstance, which, field of the very finest anthracite coal has been not merely as an historical fact, but as forming found, and is now working. The gold proan amusing anecdote, is perhaps worth mentioning :--- " It occurred about the year 1790, at 000,000. Besides gold and silver, Russia has a paper mill belonging to Mr. Buttonshaw, in a vast extent of iron mines, yielding metal England, whose wife, on the occasion in ques- of the very finest quality. There are also tion, was superintending the washing of some | large mines of platina, copper, lead, and zinc. linen, when accidentally she dropped her bag of powdered blue into the midst of some pulp in a forward state of preparation, and so great was the fear she entertained of the mischief she had done-seeing the blue rapidly amalgamaonce disclosed the secret, for which she was afterwards rewarded in a remarkable manner by her husband, who, being naturally pleased with an advance of so much as four shillings per bundle upon submitting the 'improved' chased a costly scarlet cloak (somewhat more pany sold a considerable portion of last year's than it would be now,) with much satisfaction for the sharer of his joys."

It is a fact that the best bleached paperthat which is called white—is not really a pure white, but has a yellow tinge. This is also ductions for the current year :the case with bleached cotton cloth. To make Coals, at pits the paper pulp and also cotton cloth a pure Ire white after being bleached in the ordinary C manner, they are colored (very lightly how- L ever) with blue, in the same manner that wear- T ing linen is tinged by washerwomen. If a S tinge of some red coloring dye drug like acid- Z ulated cochineal were combined with the indigo blue in tinging bleached paper pulp or cotton cloth, a purer white would be obtained than by the use of blue alone. A ray of white light is composed of three colors-red blue of red and blue to make it a perfect white.

Dean Cotton.

The following from the New Orleans True interest to our cotton planters :-

"An occasional notice of the sale of a small used, by a simple arrangement, for the purpose of drying wet clothes and other articles almost ing useful knowledge. | may do well to refer to the Patent Officereport | thin slices, in the axle boxes.

of 1853 for the following statement of A. M. Hana, near Danville, Montgomery Co., Texas:

'The fact that I made 51 bales of cotton, (Dean seed,) 500 pounds to a bale, 1,800 pounds to the acre, and 17 bales to each hand, can be well authenticated by all of my immediate neighbors. I had 70 acres of "hog wallow" prairie land, of a black and stiff soil, cultivated chiefly in cotton, oats, sweet potatoes, and Indian corn.

I planted my cotton very early, preparing the land in the best manner, and had no drawbacks to contend with from crab-grass, insects, unpropitious weather, nor evils of any kind. It was the second crop in the field, on which no cattle had been permitted to run, and had been made mellow and easy to work by copious ing myself, with four hands to save the crop.

Mineral Wealth of Russia.

Minerals of the most valuable and useful simplified and cheapened, so that one of suffi- rious places; but there is a district of country cient power for farm uses could be made for on her southern frontier, extending nearly in a \$100 or \$125, the sales would be far more ex- line parallel with the northern coast of the tensive and their use more general than that of Sea of Aral and the Caspian, and to the north gether. Of this there can be no doubt. Com- salt is found of the finest quality. Immense mon horse-powers would very soon be num- beds of sulphur have lately been discovered bered among the things that were and are no about Secamara, on the banks of the Wolga; and vast gold fields have been discovered around the sources of the Lena. Silver is most abundant at Nartshinsk, on the Chinese boundary. There is good reason to believe that all Siberia abounds with the precious metals. Very large fields of fine coal have been found in different parts of Russia, especially in the iron districts. To the westward duced in the Ural Mountains was in 1851, \$12,-

Mineral Wealth of Lake Superior Regions.

The mining business has been very prosperous during the past season ; and up to the close of the navigation, the total product for the ted with the pulp-that all allusion to it was year was 4855 1-2 tuns. The value of the studiously avoided, until, on Mr. Buttonshaw's copper at the wharves was \$140 per tun, zakinquiring in great astonishment what it was ing the money value \$679,770. The increase that had imparted the peculiar color to the of this year's shipments over last was 1800 pulp, his wife, perceiving that no very great tuns, and it is estimated that those of the endamage had been done, took courage and at suing year over the present one will be about double. The Lake Superior copper contains silver, some having produced as much as 3 3-4 lbs. to the tun. Of the copper shipped from Lake Superior, 1600 tuns go to Pittsburg 2000 to Detroit, and the remainder to Clevemake to the London market, immediately pur- land and Boston. The Minesota Mining Comcongenial to taste in those days, it is presumed, copper to Rothschild's house. It was smelled in Paris, and found to contain, besides the usual alloy of silver, a trace of gold.

Mineral Wealth of England.

Estimated value of the metalliferous pro-£23.000,000

ron ore	•			•		•			3,000,000
Copper or	e								1,300,000
lead ore									1,500,000
lin ore									700,000
ilver									. 200,000
inc ores									15,000
alt, eart	hs,	sι	ılpł	ur,	b	uild	ling	st	ones, &c.,
&c.	•								3,000,000
								_	

£32,715,000

The and yellow. If bleached cotton cloth, there- Journal. We entertained the opinion that the fore, has a yellow tinge, it requires the presence raw mineral products of England were far greater than they are. They only amount to \$158,667,720. The export of one American product-cotton-amounts to more than onehalf of all the mineral wealth of England. The value of American cotton exported for the year ending June last, is \$88,143,884. Of this nearly two-thirds were taken by England and her dependencies, the amount being \$57,730,-259.

Total .

Fat pork is employed on some of the Ohio Railroads for lubricating axles. It is placed, in