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pal cities and towns in the United Staes.
 . dor in six months.

Improved Wood Planing Machincs
The accompanying engravings are views of the improved Wood Planing Machine for which a patent was granted to Nelson Barlow, on the first of July last.

Figure 1 is a perspective view of the machine, and fig. 2 is a section exhibiting the radial action of the upper frame and connections.

The general principle of the invention consists in passing planks over a cylindrical cutter of the usual form, which revolves in fixed journals in the frame of the machine and a fixed roller or bed in front of the cylinder, while the planks are pressed down by an improved self-adjusting frame acting upon their upper sides, and they are, by this means, brought to a uniform thickness.
A is the main frame of the machine. It has suitable bearings to receive the shaft of the cutting cylinder, D, fig. 2., which is armed with cutters of the common form, and which revolve and cut in a direction against the advance of the plank. Inside of the bearings of cylinder D , there are other large bearings that receive a projecting hollow axle, formedupon the sides of the standards, C , through the center of which the shaft of the cylinder passes.
$B$ is an upper frame attached to and resting upon standards, C C. This frame can be raised and depressed by adjusting screws to set it, for planks of variousthicknesscs. Ithas a plate, $l$, at its lower part, extending from side to side between the standards ; this plate bears upon the surface of the plank while being planed. In the forward part of frame $B$, the upper driving roller $F$, is placed; its under side being in a true line with the plate $b$. Th under driving roller, E , is parallel with the first, and is attached to the main frame in an unyielding position. After the plank passes the cutting cylinder, and has been reduced, it rests upon and is supported by the small roller, G. As this roller is connected with the standards, C , and they being connected to the cylinder shaft by a hollow axle, it follows that this roller occupies a fixed relative position to the under side of the plank and to the cylinder; no adjustment of it, therefore, is necessary for planks of different thicknesses. A bar may be used in place of this roller, or the tablemay extend out from the machine to support the planks. L is the feeding table; the part, O , to which it is attached is connected with the cross rail of the main frame on an axle, by which it can be moved up or down, or it may be connected with the shatt of the lower roller. H, fig. 1 , is a connection or link which, through the medium of the rubber spring, $\mathbf{N}$, attaches the upper frame, B, to the lower frame, A. By the elastic pressure of this link, it controls the action of the upper frame, giving such an amount of bearing force upon the plank as may be necessary. This link has a lip at its lower edge that fits into a recess in the part 0 , and there is a recess on its upper part to match it into the frame, B. These connections are removed when the cutters require to be sharpened; this leaves the frame, B , frce to be swung over, and when in this position the cutters can be sharpened or adjusted with ease.

When a plank enters between the feeding
barlow's wood planing machine.

ollers, F E, the upper one rises (being under $\mid$ small roller, G, acts as a similar agentin con- chine is thus reduced to the smallest possible elastic pressure) as the forward part of the up- nection with the weight of the plank, to keep number of adjustable parts.
per frame rises. The frame, B , together with the rear end of the plank in firm contact with The space occupied by the machine is small, the plank, is then inclined, which incline is plate $b$. The driving rollers occupy at all being only about four by three feet, and the greater or less, according to the surplus wood times parallel positions, thereby bearing equal- power required to operate it is comparatively of the plank. As the plank passes forward ly upon the plank, thus exerting a uniform trifling. It is especially adapted as a shop mafrom the rollers, its upper side rests against the feeding force. bearing plate, $b$, with a considerable pressure, because the weight of the plank acts upon the lower roller as a lever, and also because of the on its under side. The cutting cylinder is thus the cutters from taking plate. This prevents enclosed, which removes to a great degree the annoyance from dust and liability to accident, machine. In passing out of the machine the fro which also saves the surface of the plank

chips, \&cc., and prevents, by the upper frame, |attached to the frame, A, by means of axles $B$, their ends from being scored on entering around the shaft of the cutting cylinder, and and leaving the cutters. The feeding rollers, can be swung over readily upon these centers E and F, have fixed bearings, the former upon whenever it is desirable to obtain access to the
the main frame, A, and the latter in the self-
cutters forsharpening, \&c., as stated. Changes adjusting frame, B, which frame is held down
by the springs, N N, to the plank. The frame,
of thickness are made in the most convenient
manner, by raising or depressing the upper by the springs, $\mathrm{N} N$, to the plank. The frame, $\mid$ manner, by raising or depressing the upper
B , is connected with the stands, C , which are
frame, which is alone adjustable, and the ma-
chine, where it is desirable to save power and room. It will plane lumber twenty-two inches in width and under, and from one-fourth to two and one-half inches in thickness.
One of these machines is on exhibition at the Fair of the American Institue, in the Crystal Palace, and more information may be ob tained by letter addressed to Alfred Conger agent, 345 Broadway, this city.

## Wild Fruits in Australia.

In this country there is almost total absence of wild fruits. There is scarcely a nut, berry, or wild fruit of any kind. No apples, no plums, no grapes. There is a species of cranberry, the fruit of which grows under the plant, but this is extremely rare; and there is a fruit called the quandong, which has a large stone, and seem to resemble a plum. Edible roots are as few. In fact, except a very rare sort of fungus, growing in the ground, called native bread, which the natives roast and eat, and the small root called the murnong, the natives have no vegetable food. But it is a country which takes kindly to any fruit, root or vegetable that civilized man brings into it; and will doubtless, one day, be as affluent in all these riches of nature as any land on the globe. The peach flourishes; the same is the case with the vine and the fig.

Extensive Flour Mills.
There are sixteen flouring mills, with eightyfour run of stone, capable of manufacturing about ten thousand barrels of flour per day at Oswego, N. Y. There is perhaps no point in the United States, or in the world, where the manufacture of flour is conducted upon so large a scale as in Oswego. The facilities for handling grain are extensive ; the elevating capacity being about thirty-six thousand barrels two milions two hundred thousand bus about

B , is connected with the stands, C , which are frame, which is alone adjustable, and the ma- two milions two hundred thousand bushels.


 stuft they hap pen to be planing, to pre vent the sa na from
slip ping. Some carpenturs drive in a nail at the head of

 The present inprovemenent consit, of a small metalicic
frame, having in its center a pivoted tongue- -like the toingue of a buckle, the frame is let in and fastened. flumh
with the bench. $¥$ he tonsue serves as the hooks, and as it may te ie inst.ntly yele vated or deperesed by by the finger. it
maitifetly posyseseses much advantage over the common mauifertly possesses much advantage over the common
hhools in in point of convenience. The lower side of he tougue in notcled, like a rack, and there is a spring paw to oratch the same. This part of the contri,
hold theie tongue firm in any dexired position.]











 forth















 sour: Tums is a very simple, cheap, and effective separa-
or.



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[Inthis improvement there is a movahle chamber at the breech of the Eun for receiving the cartridser the
chamber being hinged so as to onen up laterally like the lid of assuff box. The opening and closing of the cham Ler is effected by meansof a trigerer Euard le ver lo ated
unde neath the stock, the same as in most of the breech. underneath the sto
loading fire arms.
There is also als. very ingenious self.acting contrivance for puting the percussion caps upon the nipple By tha act ofopening the cartridge cham ber the hammer
is cocked anda cap placed upon the nipple mains to be done ist stip the charge into the chamber and close the same, when the pieco is ready for instan
dischares.
The pirg, \&c..are performed with ease and precision. The ing., \&c.. are performed with ease and prectision. The
mechanism ocurupes but ititle espace, is simple, and cheap Weregard it as an excellent im provement.]





















(In com mon !umber wayons the ends of the reaches
verlap, and are secured tosether ly means of a pin: in order to render the lennth of the reaches changeable,
 ta, ines, through which the pinp pases. Feaches thus bo
and fastened ire weak. and frequently breakk down. ement consists in placing a ser ies of
 two racks are unied a sliding ring collar is employed to
hoold them tog ther. In order to change the lenghl $o_{f}$
 ricks ay desired, and bind them ayain with the collar.
Reaches thus furnished are iot bored, and are therefore much stronger the coupling is alio much more rizid
than the old plan. This is a good invention and worlhy of extensive introduction.]

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or ancribeco.
$\underset{\substack{\text { Cononing } \\ \text { deijinn. }}}{\text { Stoves-James }}$ Wiggr, of Troy. N. Y..two

## Parlor Stovis Plates-James Wager, of Troy, N.

## To Pay Out a Sulmarine Cable.

Messrs. Edicors-As you have become the great medium by which ncw mechanical thoughts and ideas are communicated to the public mind, I will describe a plan, which, I think, would have prevented the loss of the telegraph submarine calle while being laid down between Newfoundland and Cape Breton. It is this: The cable should be "paid out" at, or near the center, and through the bottom of the ship. The box for working a center-board in a vessel will give the idea of communication through the bottom. With one or more sheaves fixed in the hox, the telegraph could be reeled off and out handsomely, either in a smooth or rough sea. The weight and strain would always be where they should be, viz.: at a point in the vessel nearer stationary than any other.
G. B. Jr.

For the Scientific $\Lambda$ merican.]
On Pregerving Fruit On Preserving Fruit.
Atmospheric changes have very great, if not the most powerful of all influences detrimental to the preservation of fruits. First, as regards their calorific effects; second, their hygrometrical. In the former respect, the expansion and condensation occasioned by the rise and fall of temperature, must work a change in the state of the juices, doubtless often at variance with the gradual chemical change which those juices naturally undergo. Hence, those fruits that are most exposed to vicissitudes of temperature, are most apt to fail in attaining their full sugary mellow perfection. Again, when warm weather suddenly succeeds cold, the air in the room is of a higher degree of temperature than the various substances, until such time as the latter acquire from the former
an equality of temperature. Fruit, \&c., from an equality of temperature. Fruit, \&c., from
its coldness, acts as a condenser of the vapor existing in the warmer atmosphere by which it is surrounded. The surface of the fruit consequently becomes covered with a great deposition of moisture, as will be the case with a glass filled with water colder than the atmosphere of the room into which it is brought. It is a known fact that fruits and vegetables possess a temperature higher in winter than that of the air generally by which they are surrounded, this, as well as other causes given,
produces chemical action in different degrees. In some substances eremacausis, or decay, is the result. An atmosphere saturated with moisture will cause these to take place in fruit and vegetables. As soon as the action of the air ceases, that is, as soon as deprived of oxygen, the humas suffers no further changes. Substances that contain nitrogen are most prone
to putrefaction. Wher
When the decomposition of such substances is effected, with the assistance of water, their
nitrogen is invariably liberated in the form of ammonia. Hydrocyanic acid and water when brought into contact with muriatic, are decomposed into formic acid andammonia. Charcoal has the power of condensing ammonia and formic acid before reaching the freezing point.
Chloride of calcium has also the property of absorbing a great quantity of moisture (double its own weight,) and then becomes liquid; in this state it is important to save the liquid, as it may be put in a brass kettle, and placed over the fire, where it will soon evaporate to perfect dryness, and be as good as before. This
does not absorb the carbonic acid set free by does not absorb the carbonic acid set free by
the fruits-itisimportant that this be retained in the atmosphere. Light is also found to be injurious to truits. All menhaving experience, agree that they keep best in total darkness.This arises from a specific stimulus being exercised upon the vegetable tissue by this agent. withdrawn it ceases. Guy Lussac has shown that the atmosphere coming in contact for a short time with fruit, \&c., will cause fermentation; this would continue, though not long, exposed to the air. Decay is prevented by cold, dryness, \&c., many salts and absorbents. He says, "It is a fixed rule, without exception, whatcver may be the cause that produces the decomposition, that every azotized constituent of animal or vegetable organism enters spontaneously into putrefaction when exposed to moisture and a high temperature."
Eremacausis or decay takes place in organic sumstances in contact with air or oxygen, but cluded, or when the substances are exposed to the temperature of 32 degs. Liebigsays, "the phenoment of animal and vegetable life are peculiar to themselves; they stand in certain relations to each other, and depend on certain causes. Heat aiters the original mode of arrangement of the atoms, and consequently the equilibrium of their mutual attraction. No organism, no portion of an animal, vegctable or plant, is capable, after the extinction of vital energy, of resisting the chemical action whic air and humidity exercise upon it."
Preservation of fruits is a subject now demanding thorough investigation; its present and prospective importance, in a commercial point of view, is worthy of serious and immediate attention. Millions of bushels of choice thus are at present rotting on the ground, an
lost to the human family. The keeping of the fruits in winter, and the packing of them for distant markets, are questions that concern deeply the extensive fruit growers in this country. The fruit garden cannot give the results expected fromit if we are deprived of its productsfrom February till July, when the earliest fruits begin to ripen. This question concerns producers and consumers, alsothose who deal in fruits, and who, without proper modes of keeping, are exposed to great losses. How very desirable for all living in large cities that the present surplus fruits be preserved till next spring, so that they might have the comfort of having cheap grapes, pears, apples, pumpkins, \&c. All this will yet beaccomplished. From what has been collected from various sources, we may conclude that a method of preventing the decomposition of the frat without the use of any substance which shall injure its flavor, either by the addition of a new flavor or the destruction of the natural one, is what is wanted. Many methods are useful on a small scale, but it appears to me the trouble and expense attending is too much for the quantity preserved. In No. 45 , Scienitic American for 1855, the principies and construction of my Prescrvatory are explained and illustrated; apples and pears should be packed in good oak barrels, resting on their sides in tiers not more than four feet high. If the ice be kept as directed, the temperature will be from 40 degs. to 45 degs. In proportion as the seven following conditions are fultilled in the fruit room, will the result be satisfactory :-First, that the temperature be 10 degs. above freezing. Second, that it be uniformly equal. Third, that the fruit room be dark. Fourth, that the atmosphere be more dry than humid. lifth, that the carbonic acid disengaged from the fruit be retained in the room. Sixth, that the air be sweet,-the arrangement of the Preservatory with absorbents or screen will keep it pure and wholesome. Seventh, that the pressure of the fruits so placed is rednced, as far as possible. All these are attained by the Prescrvatory, and by no other method. Some of the appies, of various perishable kinds, preserved iu this way, were given, in June last, to the editors of the Tribune, Times, Sun, and Scientific Amelinns, and were spoken of by them, at the time, in the most flattering terms. I hope fiuit growers and consumers will thoroughly investigate, and practice the best mode. "Hold fast to that which is good," so that sound fruit, having its aroma retained, not substituted by alcohol or sugar, be plentiful at all seasons of the year. Also dairy products-eggs, meats, \&c., \&c. $\Lambda l l$ hese are kept fresh by using the Preservatory.
W. D. Pariser, Patentee,

No. 201 Washington street, New York.
Hussey's fenber and Aisiny' Automatic Raker. Messes. Editons-Your remarks on page 29, this Volume Scientific Anerican, under the head of "Atkins' Self-Raker in France," is calculated to do me injustice. The term Atkins' Self-Raker will be understood by nine-ty-nine-hundredths of your readers to mean the whole machine; if not so, it most effectually leaves me out of the question. It is very true that I did not invent one particle of the Automaton Rake of Mr. Atkins' ; it is equaly true that this Automaton Rake is used on a machine invented by myself. Deprive the machine of Mr. Atkins' invention, and it would still be a "Hussey Reaper." Deprive it of my invention, and it would be no reaper at all. I conveyed to J. S. Wright, of Chicago, by written agreement, several years ago, the privilege of using, for a limited period, my invention, for the puriose of adding the Atkins' Self-Raker o it.
Knowing your love for fair play, you will set this matter right. Obed Hussey. Baltimore, Mid., Oct. 16, 1855.

## Good Shooline.

A great shooting match, at pigeons, on"the wing, took place on the Sth inst., at Cincinnati, Ohio, between W. King, of Georgia, and R. Duncan, of Louisville, Ky. Mr. Duncan was the victor. Each party hadseventy-fiveshots, wo pigeons being let out at each shot. Dun can shot 130 birds, and missed :20; King shot 129 birds and missed 21. The wager was $\$ 10,000$, and the money was lost by a single bird only.

