New Inventions.

The Collins Company vs. Mr. Thomas.

The American Collins' Axe Co. have prosecuted Mr. Thomas, a Birmingham manufacturer, for fraudulently using their trade mark; and the Vice Chancellor, in giving the verdict in favor of the American Co., made the following highly creditable and liberal remarks: He said that nothing could justify the course of fraud which had been practiced in England against the plaintiffs. He, for one, felt deeply indebted to them (though, of course, they had only been advocating their own interests) for putting an end to this nefarious practice—a practice, he was glad to find, which was not subject to the jurisdiction of his court alone, but could also be reached criminally, and severely punished.

Brown's Patent Polychromatic Press.

We lately witnessed the operation of this simple and compact press, for printing three or more colors at one impression, and were highly pleased with the effective and beautiful manner in which the colors were combined upon cards. The respective parts for holding the lines of type which are to receive different colored inks, are so arranged and operated in relation to the respective inking rollers and their movements as to enable all the type, after being properly inked, to be combined and embraced in one form on a single platen, and the impression to be then obtained from the same. This distinct inking of the rollers and type and combination is effected in a very simple and self-acting manner, and by it any combination of colors, no matter what their peculiar arrangement may be, so that their parts can be held in distinct frames, can be imprinted. It is the invention of Stephen Brown, of Syracuse, N. Y., and was patented through the Scientific American Patent Agency on the 6th of January, 1855.

Improved Saw Bench.

This invention consists in hanging two or more circular saws (a cutting off and a splitting saw), in a swing frame, in such a manner that when it is desired to use the splitting saw it can be raised to project any required distance above the table, at the same time the cutting-off saw is below the table, out of the way. When it is desired to use the cutting-off saw, that is raised and adjusted as desired, the splitting saw at the same time falling below the table, out of the way.

The invention is fully illustrated in our engravings, Fig. 1 being a perspective view, with part of the table broken away, to show the arrangement of the parts.

A is a frame, surmounted by an elevated table, B. This table is made in two parts, B and B′, divided on a line with the saws. C is part of a swing frame that holds the saws and saw arbors, moving on a central axis, D. E E are the axles of the saws, G G′ carrying on their outer extremities the band wheels, H H′, between which is a loose pulley, I; and there is a cutter that can be placed on D for cutting tenons (not shown in our engraving), that can be made to rotate by the pulley, I. J is a rest for the table, which it supports, as well as giving strength to the swing frame, G. K is a segment wheel mounted on D, by which the saws, G and G′, are alternately raised or lowered; it is moved from the handle, N, by the endless screw, L, upon the arbor, M, of N.

O is a guide pivoted to bars, P, which are pivoted to the table by screws, *a*. By this means it is made capable of a parallel motion, and can be brought nearer to or removed further from the saws, according to the width of the stuff to be sawn. To P is secured a slotted quadrant, Q, having a screw and nut, R, passing through it, so that the guide or gage, O, can be firmly adjusted in any desired position. *b* is a projection above the axle of I, to which I can be secured when the saws are to be operated by a belt coming from above—as seen in Fig. 2—*h h i* being the axles of their several band wheels or pullies. When the saws are to be operated by a band coming from below the pullies, H H I, are arranged as shown in Figs. 1 and 3, S being the band. *c* is a guide, that moves on the half of the table, B′, in a groove, *f*, and it has another guide, *d*, upon it, for cross sawing.

When used for sawing, put a cutting-off saw on one arbor and a splitting saw on the other, then raise the saw it is desired to use above the table, by turning the crank, N, by which the saws may be adjusted to cut any required depth. Instead of saws, cutters may be used for grooving, sticking, planing, &c. When it is desired to cut double tenons, put any well-known cutters on the arbors, E E, instead of saws, also any suitable cutters on

WARDWELL'S SAW BENCH.

Fig. 1

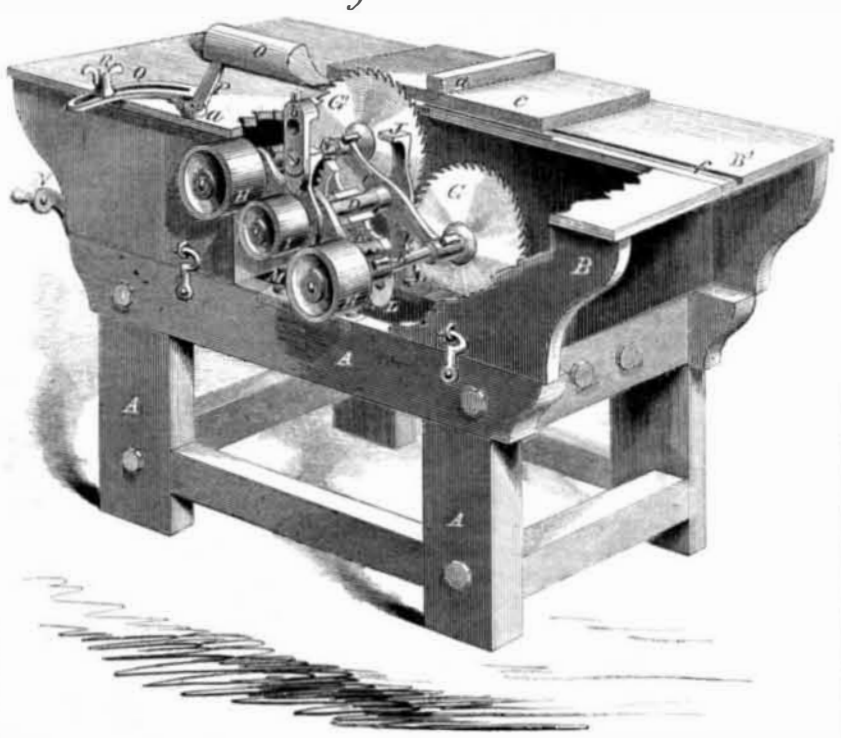


Fig. 2

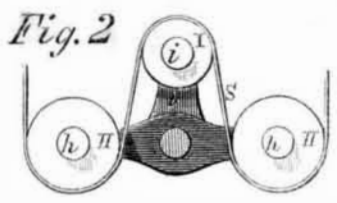
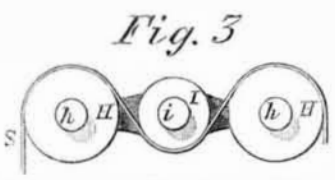


Fig. 3



the tenon arbor, for cutting the space between the tenons; then adjust the thickness of the tenons by cranks, N, and place any suitable table upon the frame, A. When it is desired to cut single tenons, two cutters are simply placed fast on the arbors, and the extra cutters omitted.

This manner of hanging saws allows one saw bench to answer every purpose of two separate ones. It also obviates the necessity of changing a splitting for a cutting-off saw, and *vice versa*, which is necessary where but one arbor is used in a saw bench, and it also possesses the great advantage of being used for tenoning with the trifling expense of cylinder cutters.

C. P. S. Wardwell, of Lake Village, N. H., is the inventor, and he will be happy to furnish any additional particulars. It was patented March 10, 1857.

BROWN'S QUILTING FRAME.

Fig. 1.

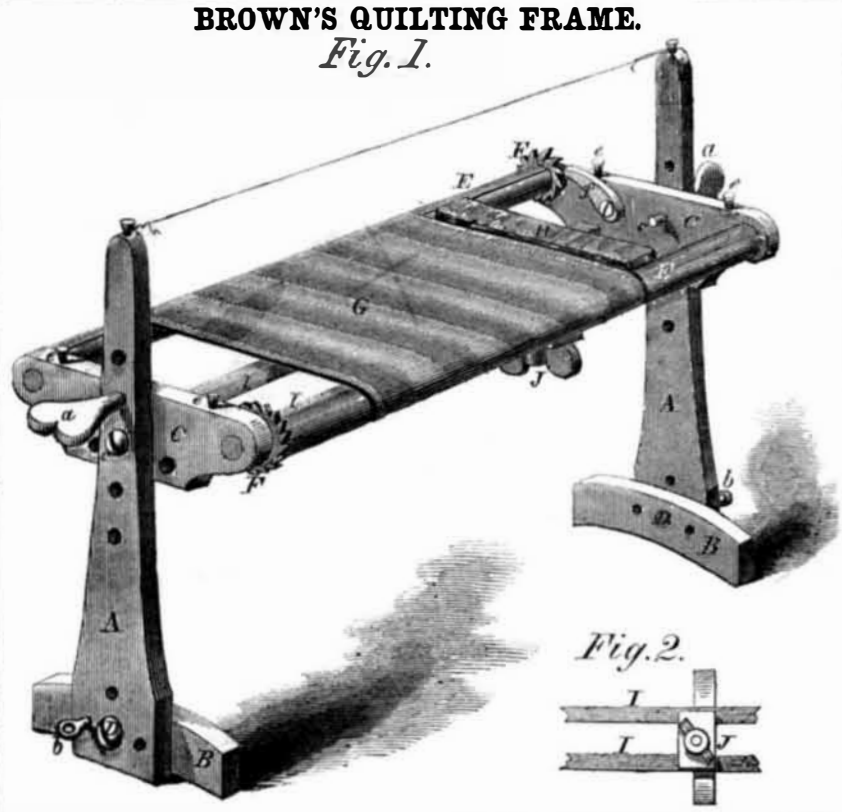


Fig. 2.

In the operation of quilting or embroidering on a large scale, a frame is required to hold the cloth or material that is to be worked upon quite tight, so that it shall not yield much from the accidental pressure of the hand while worklng. Such work is very tedious and tiring to the hand and arm, and consequently a rest is required on which the elbow or other portion of the arm can rest while the hand is over the cloth operating the needle. This quilting frame—the invention of Alanson Brown, of Rochester, N.Y.—provides in a convenient and portable form, all the desired requirements, as will be seen from the following description, reference being had to the accompanying illstrations, Fig. 1 being a perspective view.

A are two upright posts, to which are pivoted at D, cross pieces, B, that serve as feet to the frame. These cross pieces, B, are kept at right angles by pins, *b*, passing through holes in B and A, and these being withdrawn will allow B to be placed parallel with A, when it is packed up. C are two cross pieces pivoted to A by pivots, *c*, on which they are capable of turning to any angle, and they can be secured in their position by the pins, *a*. Between C two rollers, E, move, as in journals, and on each roller is a ratchet wheel, F, which is held by a pawl, *f*, secured to the cross piece, C.

The cloth or fabric, G, to be quilted is tacked or sewed to the rollers, and it can be brought off one roller on to the other, as the work progresses, and always kept properly tight. There are two bars, I I, that run from one cross piece, C, to the other, and on these the rest, H, can be secured in any position by the screw nut, J, seen in Fig. 2. The cord at the top serves to hold spools when quilting, or as an additional rail when the frame is used as a clothes' dryer, to which purpose it can be applied by removing the cloth, G.

It will be seen that the upper surfaces of B are curved, so that by turning these round they can be made to serve as rockers, and the frame converted into a cradle or small bed. Thus, if it is not wanted for one purpose it answers well for another, and forms, in a small space, a very convenient frame "to have about a house."

It was patented June 15th, 1858, and any further particulars can be obtained by addressing the inventor as above.

10,000 Sold to Agents.

About ten thousand copies of the Scientific American are regularly sold to local agents in various parts of the country. We should be glad to have this number greatly increased. One of our friends, writing from Worcester, Mass, informs us that he has induced several of the workmen in his shop to take the paper regularly from the news-agent. Will not all of our friends who receive the paper in this manner, urge some of their friends to do likewise? Thus they will increase the weekly edition of our paper, and also help the business of the "news-dealer," who, next to the parson and the doctor, is the most useful and entertaining man in the village.

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For a club of ten subscribers we only require a remittance of $15, or $1 50 for each subscriber, for one year; for a club of twenty we only require $28, or $1 40 for each subscription, for a year. Certainly this difference is well worth saving. Now, will not our friends who receive the circular prospectus go about among their friends, and get them to join a club, and thus receive for one year fifty-two numbers of a journal which should be carefully read in every family? The useful receipts alone published in a single volume are worth ten times the subscription price for one year.

To the Postmasters of the United States.

Please to inform all the inventors in your town and vicinity, that the Editors of the Scientific American have issued an elaborate circular, giving instruction how to secure Letters Patent for new inventions, which they send free to all who may desire a copy. Their great experience for twelve years past in procuring patents enables them to give the best possible advice upon this subject.

The 30,000 plates which form the hull of the *Great Eastern* are bound together by 3,000,000 rivets! These bolts hold together the framework of a structure which would carry 10,000 troops to India, with 18,000 tuns of coal and cargo.