

—within a stone's throw of each other; not the lean ores of the coal field nor the impure ores used in many parts of this country, but rich brown hematite, and a coal that requires no carbonization for smelting purposes. Where else do we find so many facilities and natural advantages? Here too, we can obtain a vast and almost unlimited water-power, with a healthy location and a climate of the most delightful and grateful temperature, not so hot even as eastern Virginia nor so cold as the latitude of Philadelphia. Located in the midst of the richest mineral region, and surrounded by fertile, productive and extensive plantations and farms, in a congenial climate and blest with every advantage Nature can supply, we also find every inducement to attract enterprise and wealth, the best promises for remunerative investment and the greatest scope for practical acquirements, with an almost unlimited future for progressive industry and a certain and ample reward for every proper exertion.

The cotton of the South is very accessible, and the wool of the West can also be very easily obtained. Even the surrounding counties produce vast quantities of sheep. The finest upland pastures exist on the mountains of Virginia, and millions of cattle and sheep go to Baltimore and our own cities yearly. Then its advantages as a manufacturing locality are not greater than its facilities to the best markets in the world. The entire South and West, and even the North-east, as far as the waters of the Chesapeake, are open (by rail and river) to every class of manufactured goods, and almost all kinds of goods may be fabricated here, since the raw material and every natural facility exist in abundance. Capital, Enterprise, Experience and Industry may and will make Central the rival of Pittsburgh and Lowell. But this great inland site of a city-in-embryo scarcely deserves the name of village. Its gently-rising slopes are still covered by fields of waving grain and groves of sturdy trees.

A gigantic scheme has been suggested for the development of the mineral and manufacturing interests of Virginia. The enterprise centers in Central. This magnificent site may and should be made available, since the result of such a development would confer more benefit on a larger number of people than the consummation of any project now before the world. No bonds are so strong as self-interest. The same policy that applies to Pennsylvania naturally applies to Virginia. It is the only plan to fully develop the border States—to make their people see clearly their own best interests—to prove to the South the value of all manufacturing processes, the wisdom of home protection and the true principles of political economy. It will open another great outlet to the trade of the boundless West and give a new impetus to the entire industry of the South.

Ten millions of dollars would open the great Kanawha to Central, and would complete a canal to the head of our present navigation; would bring steam from the Mississippi and the Ohio to this point, and thus, either canal navigation or railroad would connect with Richmond and the magnificent harbor of Norfolk—265 miles by canal and 220 by railroad would connect with the tide waters on the James. Through these channels a great proportion of the trade of the western waters would pour, and the great undeveloped trade of the south-west parts of Virginia, North and South Carolina, Georgia, Tennessee and Alabama would buy and sell to the North through those channels. A short canal—only 65 miles—would be crowded as soon as completed with the trade of an unlimited interior—a manufacturing city without limit in extent or means might be thus built up—a great State might be fully developed—a people might be enriched and otherwise profited—an immense trade might be driven from new sources and through new channels—a vast harbor for the idle ships of the North would be opened—a new field for capital, enterprise and labor would be presented, and a fruitful source of gain and profit would thus be secured to all interested. It is time the capitalists of the North should turn their attention from the West to the South. The engineers and agents of France are now here, and if the field is left to them, "our bonds must break." It is their policy to weaken our tie, if they would profit.

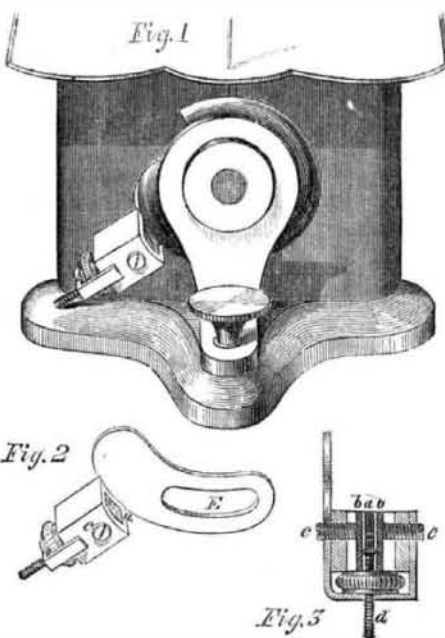
S HERRIES DEBOW.

Richmond, Va., July 14, 1860.

MORTONS' LOOP CHECK, ADAPTED FOR THE WHEELER & WILSON SEWING MACHINE.

We do not believe there is to be found in the whole world of mechanism a more ingenious contrivance than that for passing the lower spool of thread through the loop in the upper thread formed on the return of the needle in the Wheeler and Wilson's justly-celebrated sewing machine. In the first place, the form of the spool is such as to enable it to be passed through the loop and returned with a reciprocating motion of very small extent, thus permitting the motion to be slow though performed many times in a second. Then the loop is carried around the lower spool by a revolving hook, using the rotary motion which may receive a high velocity without shock or jar. It is well known that the greatest practical annoyance which has been encountered in using these admirable machines is in the adjustment and removal of the leather pad which holds the thread upon the looper until the proper point is reached for its release. The invention which we here illustrate is intended to obviate this difficulty.

It consists in the substitution of a fine hair-brush in place of the leather pad, and in the arrangement for its convenient and delicate adjustment, which the accompanying engravings illustrate. Fig. 1, in the annexed cut, represents the looper of Wheeler & Wilson's machine with the brush attached, and Figs. 2 and 3 are views of



the brush and its case detached from the machine. The fine, flat hair-brush, *a*, is placed between two iron plates, *b b*, the pressure of these plates against the hair varying the rigidity of the brush, and being regulated by the screws, *c c*, by which also the lateral position of the brush may be adjusted. The pressure of the brush against the looper is regulated by the screw, *d*, and the slot, *E*, permits the position of the brush case to be adjusted upon the machine.

This invention was patented, July 26, 1859, by J. W. Morton, of Hopkinton, R. I., and its comparative advantages are thus stated by the inventor:—

First: It is composed of hair which is permanently elastic, and never becomes hard.

Second: It never requires any oiling; therefore, there is never any danger of soiling the work through its agency.

Third: It can be more nicely adjusted than any other. There are three independent adjustments to this check, while no other has more than two. The lateral adjustment by means of set screws, which is peculiar to this loop check is very important, and even indispensable in very fine work. The others may happen to be right, but this can be set within the one-hundredth part of a hair's breadth of its true position.

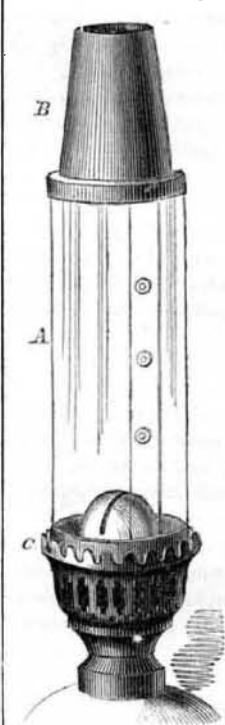
Fourth: It is remarkably durable. Perhaps no substance yet discovered will wear so long as fine hair, in contact with a smooth metallic surface.

Fifth: The perfection with which it works saves the time, the patience, and the temper of the operator.

Any further information in regard to this invention may be obtained by addressing Cottrell & Babcock, who manufacture the attachments at Westerly, R. I.

HUMPHREY'S MICA CHIMNEY FOR LAMPS.

To burn coal oil a chimney is indispensable on the lamp; and as this oil is coming into almost universal use where gas is not introduced, the demand for lamp chimneys is becoming enormous. All who have had experience with these articles are aware that they are usually made of very thin glass, to prevent being cracked by the heat, and are consequently fragile, and the source of constant annoyance and considerable expense by breakage. The invention which we here illustrate effectually remedies this difficulty.



The chimney is made of a thin plate of transparent mica, bent in the form of a cylinder, *A*, and riveted at the joining edges as shown. A metal cup, *B*, is fitted to the top to receive the shade, and a metal base, *C*, is secured to the bottom to support the chimney upon the lamp. It is for this combination that the patent is granted. Many will say this is a very small and trivial affair, on which to take a patent, but it is, notwithstanding its simplicity, one of the most useful and practicable inventions of the day.

The patent was procured through the Scientific American Patent Agency, July 17, 1860, and persons desiring further information in relation to it should address the inventor, J. Y. Humphrey, at No. 321, North Second-street, Philadelphia, Pa.

THE ECLIPSE.—The wonderful accuracy of astronomical observations and calculations was again shown by the occurrence of the solar eclipse on the 18th inst., at the exact instant which had been so long before predicted. As the little hand on the astronomical clock came to the fraction of a second which had been announced, the dark form of the moon, moving along on her appointed course, was seen to come in line between us and the edge of the sun. The morning here was clear and the eclipse was generally seen by our citizens, but the most accurate and valuable observations were made by the amateur astronomer, Mr. Rutherford, through his large equatorial telescope, which was used for taking ten photographs of the sun, showing as many phases of the eclipse, and a remarkable cluster of spots upon the sun's face. These have been published and are for sale by Rintoul & Rockwood, 839 Broadway, this city.

HEAVY FAILURES IN THE LEATHER TRADE.—A crisis has occurred in the hide and leather trade of Great Britain, and some failures are announced; the list is headed by the large house of Stratfield, Lawrence & Mortimore, of London, with liabilities estimated at \$5,000,000. This failure has produced a great sensation throughout London and the provinces, and a long list of other houses are reported to have succumbed, with liabilities amounting (so far as the facts are announced) to about one million dollars more! The entire leather business has thus been thrown into confusion and the value of English hides has fallen 30 and 40 per cent. The American houses in Liverpool in the hide trade are not compromised.

TOMATO CATSUP.—As the time is at hand for enjoying this favorite sauce, the following is a very good receipt for preparing it for future table use:—To a half bushel of skinned tomatoes, add one quart of good vinegar, one pound of salt, a quarter of a pound of black pepper, two ounces of African cayenne, a quarter of a pound of allspice, six good onions, one ounce of cloves, and two pounds of brown sugar. Boil this mass for three hours, constantly stirring it to keep it from burning. When cool, strain it through a fine sieve or coarse cloth, and bottle it for use. Many persons omit the vinegar in this preparation.