NINETEENTH CENTURY LICENSE AGREEMENTS FOR FANCY WEAVING MACHINES

Clarita Anderson and Steven M. Spivak

Many U.S. weavers, between 1820 and 1850, survived the mechanization of the textile industry by weaving fancy goods that could not yet be produced by power looms. Ingrain carpets and "figured and fancy" coverlets were two of these so-called fancy goods. The production of these fancy goods afforded weavers the opportunity to remain independent artisans or to combine their artisanship with farming or other business ventures. Census records provide ample evidence that weaving and farming were a relatively common combination. In order for the weavers to obtain the necessary looms and improvements to continue weaving "fancy goods", various business arrangements such as license and franchise agreements appear to have been the primary mode of the distribution of this equipment. These agreements are the subject of this paper.

The machines, that is the loom plans and/or the loom attachments required to weave these goods, were apparently smuggled into the United States from Great Britain. This was necessary because British textile machinery exports were tightly controlled before 1825 and "remained under a licensing system operated by the board of trade" between 1825 and 1843. The only textile machinery exportable to the United States during this period was preindustrial equipment such as wool combs or spinning wheels; or obsolete industrial machinery such as defective spinning equipment; or finishing machines such as engraved copper rollers or calico printing machines.[1] It follows that since the looms needed to weave these "figured and fancy" coverlets were not preindustrial or obsolete equipment, they were most likely smuggled out of Great Britian through a variety of illegal methods. There were numerous smuggling routes, machinery was often misrepresented or inadequately described in export application forms, or the machinery was broken down and smuggled into the United States as a number of unidentifiable parts.[2] By whatever route, looms

ARS TEXTRINA **8** (1987), pp. 67-83

for weaving ingrain carpets and "figured and fancy" coverlets did arrive in the United States.

Once the looms were in operation, mechanics and weavers obtained United States Patents for improvements to these looms. Carpet and coverlet weavers were weaving these fancy textiles, but how they purchased or acquired the equipment has remained obscure.

The purpose of this research is to establish how individual hand weavers in rural areas obtained this special weaving equipment. The hypothesis of this research is that numerous licensing and/or franchising agreements existed between patent holders and weavers, rather than the direct purchase of the fancy looms from manufacturers. This is important because it presents a clearer understanding of the various means by which patented weaving machines and accessories were obtained by nineteenth century U.S. weavers, and contradicts the thesis of direct loom sales.

Before reviewing the nineteenth century American patent system, it is useful to note key British patent developments. From their inception, letters patent in Great Britian were used for a wide range of purposes. "There were patents of appointment of military, judicial and colonial officers and patents of nobility, precedence, land conveyance, monopoly and inventions."[3] English letters of patent were granted personally and directly by the sovereign and were registered in the Patent Rolls in the Record Office.

To enhance commerce, the patent concept was broadened in 1326, when the British monarch encouraged the importation of new arts with the promise of protection. In 1327, Edward III further protected new industry by prohibiting the wearing of foreign made cloth.[4] The rise of the British cloth industry during the fourteenth century is attributed to this policy. The earliest known instance of royal protection for foreign craftsman was given to John Kempe and his Flemish weavers by Edward III in 1331. In 1337, a statute was enacted that gave all cloth workers from other countries special franchises and privileges if they settled in England to practice and teach their crafts. These franchises and privileges, however, were not monopolies but merely passports to overcome the strict guild regulations against competition.[5]

In 1559, Jacobus Acountius, a citizen of Trent, petitioned Queen Elizabeth I for a patent for an invention. He claimed that others would copy his invention to his loss unless he were protected. Acountius is credited with the concept of rewarding inventors with patents for their inventions.[6]

During this period, many important patents were denied for a variety of reasons. One such example was the Reverend William Lee's important and novel stocking knitting machine. Lee was denied a patent, however, because it was feared thousands of workers would be forced out of work.[7] The conditions of each patent granted varied considerably and not all patents went to inventors. Many went to importers of machines or trades not previously practiced in England. Also, patents were not granted for any specific time period. These discrepancies occurred because "...patents were granted, not as the right of an inventor, but only by the favor and grace of the queen".[8]

Many protested these practices and in 1601, a declaratory bill was introduced in Parliament to eliminate the monopoly abuses which had become a burden on free competition, and to restore freedom of trade. After much heated debate in Parliament, the Queen agreed to repeal or cancel a number of the monopolistic patents. This did not settle the issue or bring long term relief. The Statute of Monopolies was passed in 1624. It declared that all royal monopolies were illegal and that the only valid patents or monopolies were those for new manufactures given to the inventor. The patent's term was for fourteen years, provided it was not "mischievous to the state" by raising prices at home, hurting trade, or being generally inconvenient.[9]

The Statute of Monopolies offered no new ideas and the principles it upheld were already established by common law. Also, the position of the inventor did not change. The inventor still did not have a right to a patent and could only obtain one by petitioning the monarch's grace for a royal patent.

> It cannot be said that the English patents of the seventeenth and eighteenth centuries greatly stimulated or rewarded invention. Comparatively few were granted, the securing of a patent was difficult, the fees many and exorbitant, the treatment of patents by the

> courts extremely rigid and harsh, and the public attitude still antagonistic. It was not until the inventions of Arkwright, Watt and the many others which inaugurated our modern industrial progress, that a more liberal spirit prevailed, and patents became of great benefit to inventors and to the public.[10]

The concept of a patent system was brought to the United States with the arrival of English immigrants. The American colonies granted some monopolistic patents as a means of inducing badly needed industry to settle there. They also realized that the offer of an exclusive patent would also encourage new inventions. By the time of the American Revolution, almost all colonies had adopted patent systems and granted patents. The systems became well established and remained in effect under the Articles of Confederation. Congress did not yet have the power to grant patents. During the Constitutional Convention of 1787, a measure was proposed and adopted which granted to Congress the power

> To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.[11]

Sherwood points out "that at that time, 'science' meant knowledge in general, and 'useful arts' meant technology".[12]

The first patent law of April 10, 1790, defined the subject matter of patents as "any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used". A patent board was created consisting of the secretaries of state and war and the attorney general which were empowered to grant patents, "if they shall deem the invention or discovery sufficiently useful and important". The inventor was required to file a specification in writing, a drawing, and a model if possible and no oath was required. The filing fees were between four and five dollars and the term of the patent was not to exceed fourteen years. [13]

The system of granting patents under the 1790 law was not a complete success. Patents were not granted as freely as some thought, and progress was slow because there was not a body of patent law from

which to draw. The three members of the patent board were extremely busy with other duties and did not have the necessary time for their patent board responsibilities.

A second patent act was passed February 21, 1793. It differed from the first act in many important respects. The most important difference was the elimination of the requirement, "if they shall deem the invention or discovery sufficiently useful and important". This eliminated the examination of the application by a board and made the granting of a patent a matter of clerical routine. The law also clarified the rights of the inventor by stating, "that the inventor of an improvement in something patented could not make, use or vend the original discovery, and neither could the first patentee use the improvement". Federico points out that this provision is implicit in the patent law "since a patent does not confer a positive right to make use or vend anything, but a negative right to prevent others from doing these things".[14]

The third 1793 change required the inventor to swear that he believed himself to be the true inventor or discoverer. He also had to provide a written description; and drawings and a patent model if necessary.

As one might expect, the patent law of 1793 invited abuse. The honor system did not work. There were questions as to the originality of the patents, whether or not they duplicated other inventions, and if the inventions were worthy of a patent. A new patent act was passed on July 4, 1836. This law created a systematic way of examining inventions and predetermining its validity before the patent was granted. It established the Patent Office as a distinct and separate bureau headed by a Commissioner of Patents. The Patent Act of 1836 also made provisions for inheritance and the assignments of rights. It also provided that, "every patent was assignable in whole or in part by written agreement, to be recorded within three months of its execution in the Patent Office". The patent assignments could take the form of either franchises or licenses, as discussed below.

It is useful to distinguish between license and franchise agreements. The licensor or franchisor was the patent holder; and a licensee or franchisee would have been an agent or specific weaver. A *licensing*

agreement is a contract between licensor and licensee. For a fee, it permitted the use of the licensor's patent in a specific geographical area. The licensor then had the sole and complete ownership of the patent rights in that area. A *franchising agreement*, by contrast, did not transfer rights, but merely permitted use of the invention or equipment. In a franchise contract, the franchisor set up and retained control over the business of the franchisee. In this latter case, it included control over the new loom and products thereof. Please note, however, that the common business usage of the terms license and franchise are not necessarily consistent with legal definitions of those same terms.

Contemporary city directories and lists of manufacturers were searched for possible sources of the weaving equipment. A patent search was undertaken, but the U.S. Patent Office burned on December 15, 1836 and all records were lost. Following the fire, a reconstructed inventor's "Name-and-Date" file was established. Resubmitted patents were checked for the inventor's full name, location, and possible description against *The Journal of the Franklin Institute* which began publication in 1826. Records of other looms and loom improvements which did not receive patents are scant or nonexistent. County records were searched for the possible sale of patent rights which sometimes had been recorded with land sales. The newspapers were searched for advertisements. Many patents were not resubmitted either because the patentee had died, or the equipment was no longer in use, it was not considered worth the refiling fee, or the fourteen year term of the patent had expired. By necessity, the study focuses on loom and loom improvements that were either advertised in contemporary newspapers or received United States patents.

One of the earliest extant advertisements indicating how early looms were distributed appeared July 7, 1814, in the Warren, Ohio, *Trump of Fame*. Jacob Hake advertised a "Highly Interesting Invention" (Figure 1). His advertisement went on:

> ...The subscriber having purchased the full and exclusive right of making, using and vending the above improvement (which was patented to Nathaniel Miller and Philip W. Miller in 1811) in the county of

> Trumbull, intends, with a view to be useful to his fellow citizens, to introduce it into this county with all possible facility; for which purpose he will sell the right at so low a price as to render this improvement cheap as well as interesting to the manufacturing class, and a benefit to society...
>
> The machinery may be attached to any common loom for weaving double or single work, with only one pair of treddles, and will cost but a trifle, and is by no means complicated...

Nathaniel Miller and Philip Miller received a patent (1565X)[15] on April 20, 1811, for "Weaving". The only information about the invention is found in the above advertisement.

On February 4 and 8, 1828, Horace Baker placed the following advertisement in the Baltimore, Maryland, *American Commercial and Daily Advertiser* (Figure 2):

> The Subscriber takes this method to inform the citizens of Maryland and of the United States, that he has invented a new and useful improvement in the loom for weaving fancy goods of different kinds, and hath Letters Patent for the same. He wishes to let it be known, that with but little information, any person may weave any figure he fancies; the most delicate and complicated patterns as easy as the most simple ones, and with almost the same rapidity as no figure at all, as the figure has no tendency to interrupt the progress of the loom. There are the rights of a number of counties in this state for sale, also a number of state rights.
>
> Any person wishing to make this opportunity an advantage, will inquire of the subscriber, at J. R. Thomas's inn, where he expects to remain a few days, of whom this valuable and desirable privilege may be purchased.
>
> HORACE BAKER, Patentee

Baker had evidently placed this advertisement in at least one other locality. John Watson placed the following advertisement[16] in the July 19, 1828, Cazenovia, New York, *Republican Monitor*:

WEAVING

The subscriber, having purchased the right of the county of Madison, for weaving on Baker's improved Loom for working figured goods, intends commencing business in Cazenovia on the first of November, where he will weave

INGRAIN AND VENETIAN CARPETING,
DOUBLE COVERLETS, DIAPER, &C.

For further information enquire of R.G. Allen.
July 19, 1828 JOHN WATSON

Horace Baker received a patent (4398X) on April 14, 1826, for a "Loom for Weaving Carpets" and a patent (4866X) on August 30, 1827, for a "Loom for Weaving Figured Goods". There are no drawings or written specifications for either of these patents on record at the United States Patent Office. Baker's advertisement appears to refer to the later invention.

Josiah Sherman placed the following advertisement in the July 4, 1837, *Livingston Register* (Livingston, New York):

FANCY
COVERLET WEAVING

The subscriber would inform the public that he continues the above business at Tuscarora, in the south part of Mount Morris, where he will at all times be ready to execute to order all kinds of Fancy Coverlet Weaving, in a style that will give satisfaction to those who may favor him with work.

After describing his work, the advertisement continued,

N.B. All persons wishing to purchase rights for patent weaving in the towns of York, Caledonia, Avon, Lima, Livonia, and Springwater, are informed that the subscriber will furnish the machines and set them up and give a fair proportion of the profits accruing from their use.

Tuscarora, July 4, 1837 Josiah Sherman

The Card Index of Restored or Reconstructed Patents indicates that Sherman did not receive a patent for any loom. There is no way of

knowing whether he invented the loom or purchased county rights to another's invention. His advertisement, however, makes clear his franchise offerings.

A March 7, 1829, advertisement in the *Independent Chronicle and Boston Patriot* indicated that similar business arrangements were made with inventors of major spinning equipment. The advertisement announced the following (Figure 3):

THORP'S PATENT SPINNER

> The Public is respectfully informed that Thorp's Patent Can, Cap and Ring Spinner, and Thorp's improvement in the formation of the spire of Yarn, on Weaver's bobbins, are the property of the subscribers, and all persons are cautioned against purchasing or using either of said improvements without their consent.
>
> These improvements are now in successful operation in this place, near the Mill bridge, where they can be examined, and the subscribers deem it sufficient to say, those persons who have examined them, are satisfied that they are great and permanent improvements, well worthy the attention of manufacturers.
>
> Orders (post paid) for these improvements, or either of them or for the right to use them in any section of the country, will be punctually attended to if addressed to either of the subscribers.
>
> JOHN THORP,
> JEREMIAH WHIPPLE,
> THOS. & WM. FLETCHER

On March 27, 1834, an addendum was placed on the March 12, 1831, patent received by George Detterich and Jonathon Conger, of Tompkins County, New York[17] for "a new and useful improvement in the Machine for Weaving figured cloth". The addendum assigned exclusive rights to the patent's use in Lansing, New York to Tichenor and Malloury for the sum of fifteen dollars.

On April 7, 1834, another addendum was added to the Conger and Detterich patent.[18] This time the right to use their 1831 patent improvement on the loom for weaving figured goods was sold to John Stiff and Michael Grace of Stillwater, Sussex County, New Jersey, for the entire county of Sussex. The value of the county rights was seventy-five dollars, rather than the fifteen dollars for the town rights.

The United States Patent Office Card Index of Restored or Reconstructed Patents does not include a card or number for the Detterich and Conger patent. Perhaps the card was lost or Conger and Detterich did not refile their five year old patent. However, *The Subject-Matter Index of Patents for Invention* does record that a patent was issued on March 12, 1831, to Detterich and Conger for a Loom for "Weaving figured cloth".[19]

Jacob Gernand and Frederick Wilhide, Jr., bought the Frederick County, Maryland rights to a new coverlet loom on September 29, 1835, for one hundred and twenty-five dollars. The following sale was recorded in the Land Records of Frederick County:

> ...Emanuel Meily Junr., John Mellinger, Samuel Mellinger, and Daniel Bordner... Do grant, sell and convey unto the said Jacob Gernand and Frederick Wilhide Jur. their heirs, executors, administrators and assigns, the full and exclusive right and liberty of making, constructing, using and vending to others to be used the said improvement within the County above mentioned and not elsewhere... To have and to hold and enjoy all and every privilege, benefit and --- which may in any way arise from said improvement, within the limits above mentioned during the term of said letters patent. and [*sic*] We do by these presents authorise [*sic*] and empower the said Jacob Gernand and Frederick Wilhide Junr. heir or assigns: to commence and then prosecute to final judgement and execution, any suit or Suits against any person or persons, who shall make, use or vend the said improvement within the said limits contrary to the true meaning and intent of the aforesaid Letters Patent & the laws in such case made and provided, and to

> receive for their own benefit and at their own cost and penalty or penalties which we might receive.[20]

Emanuel Meily, Jr., John Mellinger, and Samuel Mellinger received two patents. On March 1, 1834, they received Reconstructed Patent Number 8037X for "a weaving machine for weaving Coverlids, Carpets, Diapers and all kind of Fancy Work". Fifteen months later, they received on June 26, 1835, Reconstructed Patent Number 8936X for "Improvements in the Loom or Machine for Weaving Coverlids, Carpets, Diapers, and other kinds of fancy work". Their first patent was evidently incomplete, hence the need for a second patent. Though there were discrepancies in dates, Jacob Gernand and Frederick Wilhide, Jr., bought the rights to the first patent.

Many weavers' advertisements further indicate that patent rights were purchased for specific locations. The following advertisement placed by Archibald Davidson in the November 9, 1831, *Ithaca Journal* is but one example (Figure 4):

ARCHIBALD DAVIDSON
FANCY WEAVER

> At this Shop about 50 rods south of Otis Eddy's Cotton Factory, and a quarter of a mile east of the village of Ithaca, respectfully informs the publick that he has purchased a patent right for the town of Ithaca, superiour to any patent heretofore in the United States, for weaving Carpets and Carpet Coverlets of any pattern or figure that can be wove in the United States; and the work not inferiour to any in Europe or America...

Advertisements and bills of sale support the thesis or proposition that these early fancy looms and/or attachments were not necessarily manufactured and distributed by companies. Rather, the more common route of distribution was by inventors selling limited rights to the use of the patent. Individual inventors sold the exclusive geographical rights to their invention to a specific weaver in a specific location. Advertisements also indicate that some inventors and weavers provided the loom equipment and material in return for a royalty.

These early licenses and franchises provide evidence as to how nineteenth century American artisans were able to purchase the necessary equipment to remain self-employed as weavers until the Civil War and after.

Endnotes

1. David J. Jeremy, *Transatlantic Industrial Revolution: The Diffusion of Textile Technologies Between Britian and America, 1790-1830s* (Cambridge, Massachusetts: MIT Press,1981) p.42.

2. *Ibid.* p. 43.

3. Ramon A. Klitzke, "History of Patents Abroad", in *The Encyclopedia of Patent Practice and Invention Management*, ed., Robert Calvert (New York: Reinhold Publishing Corp., 1964) p. 384.

4. *Ibid.* p. 387.

5. P.J. Federico, ed., "Outline of the History of the United States Patent Office", *Journal of the Patent Office Society* 18 (1936): 20; P.J. Federico, "Origin and Early History of Patents", *Journal of the Patent Office Society* 11 (1929): 293.

6. Federico, "Outline of the History", p. 25 refers to him as Giacopo Acontio; Klitzke, "History of Patents Abroad", pp. 384 and 390, refers to him as Jacobus Acountius; and Hulme, "On the Consideration of the Patent Grant", *Law Quarterly Review* 13 (1898): 313, refers to him as James Acountius.

7. Federico, "Outline of the History", pp. 26-27; Klitzke, "History of Patents Abroad", p. 392.

8. Federico, "Outline of the History", p. 27.

9. *Ibid.* p. 32; Morgan Sherwood, "The Origins and Development of the American Patent System", *American Scientist* 71 (October 1983): 500.

10. Federico, "Origins and Early History", p. 305.

11. "Constitution of the United States", Paragraph 8, Section 8 of Article 1.

12. Sherwood, "The Origins and Development of the American Patent System", p. 500.

13. Federico, "Origins and Early History", pp. 63-64.

14. Federico, "Outline of the History", pp. 81-82.

15. These are the reconstructed patent numbers and not the original patent numbers.

16. This advertisement was brought to our attention by Russell A. Grills, the Historic Site Manager of the Lorenzo State Historic Site, Cazenovia, New York.

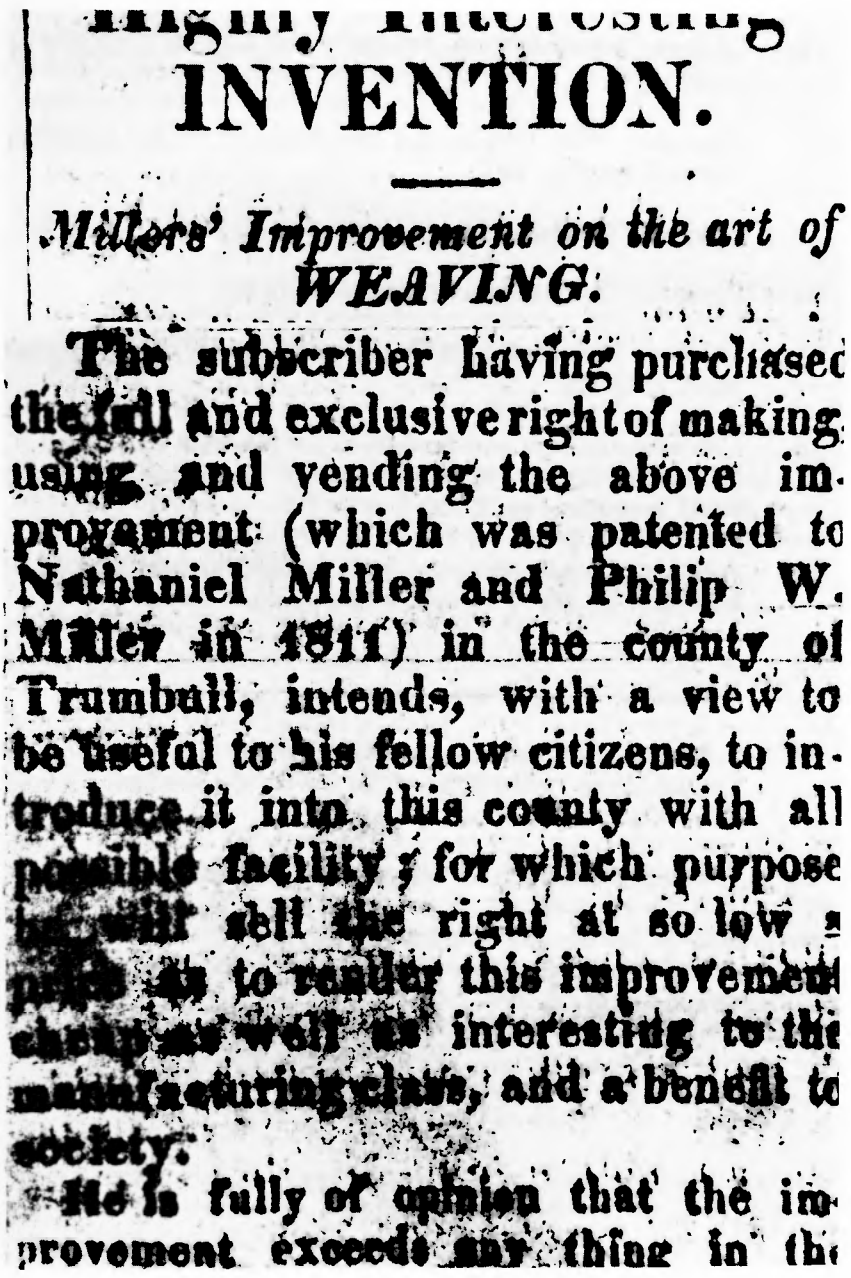
17. A copy of this addendum was made available to us by the DeWitt Historical Society of Tompkins County, New York.

18 A copy of this addendum was made available to us by Kevin Wright, River Edge, New Jersey.

19. *Subject-Matter Index of Patents for Invention, Issued by the United States Patent Office from 1790-1873, Inclusive* 3 vols. (New York: Arno Press, 1976) p. 1689.

20. "Frederick County Land Records", pp. 255-256.

Department of Textiles and Consumer Economics
University of Maryland
College Park, Maryland 20742
U.S.A.



Highly Interesting

INVENTION.

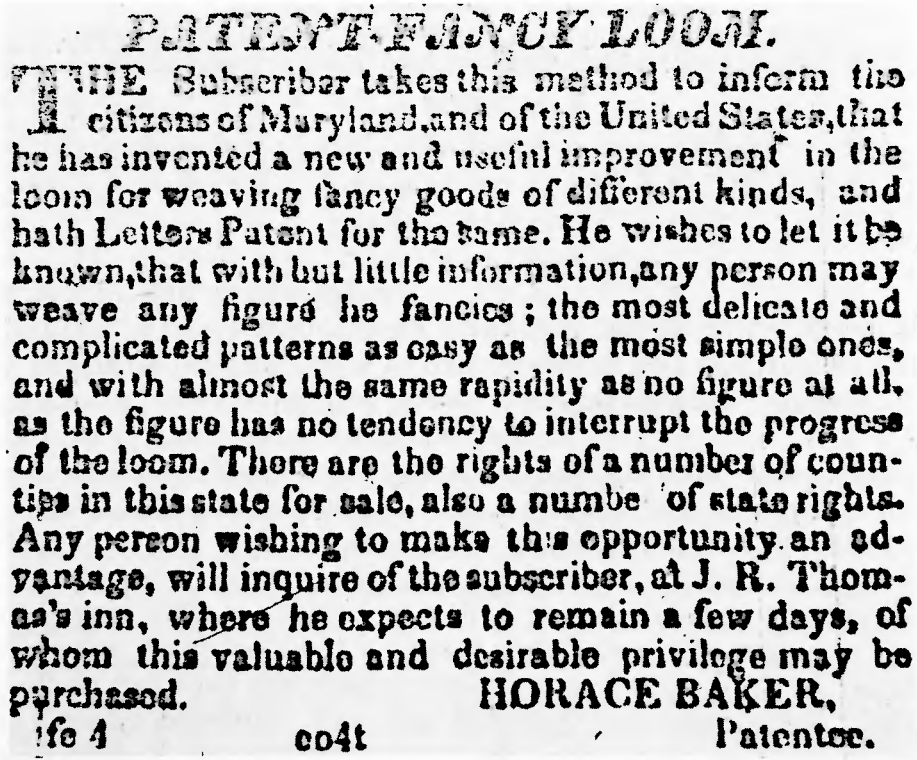
Millers' Improvement on the art of
WEAVING.

The subscriber having purchased the full and exclusive right of making, using, and vending the above improvement (which was patented to Nathaniel Miller and Philip W. Miller in 1811) in the county of Trumbull, intends, with a view to be useful to his fellow citizens, to introduce it into this county with all possible facility; for which purpose he will sell the right at so low a price as to render this improvement cheap as well as interesting to the manufacturing class, and a benefit to society.

He is fully of opinion that the improvement exceeds any thing in the

Figure 1:

Advertisement of Jacob Hake, *Trump of Fame* (Warren, Ohio), July 7, 1814.



PATENT FANCY LOOM.

THE Subscriber takes this method to inform the citizens of Maryland, and of the United States, that he has invented a new and useful improvement in the loom for weaving fancy goods of different kinds, and hath Letters Patent for the same. He wishes to let it be known, that with but little information, any person may weave any figure he fancies; the most delicate and complicated patterns as easy as the most simple ones, and with almost the same rapidity as no figure at all, as the figure has no tendency to interrupt the progress of the loom. There are the rights of a number of counties in this state for sale, also a numbe of state rights. Any person wishing to make this opportunity an advantage, will inquire of the subscriber, at J. R. Thomas's inn, where he expects to remain a few days, of whom this valuable and desirable privilege may be purchased. HORACE BAKER,

fe 4 co4t Patentee.

Figure 2:

Advertisement of Horace Baker,
American Commercial and Daily Advertiser
(Baltimore, Maryland), February 4 and 8, 1828.

THORP'S PATENT SPINNER.

THE Public is respectfully informed that Thorp's Patent Can, Cap and Ring Spinner, and Thorp's improvement in the formation of the spire of Yarn, on Weaver's bobbins, are the property of the subscribers, and all persons are cautioned against purchasing or using either of said improvements without their consent.

These improvements are now in successful operation in this place, near the Mill bridge, where they can be examined, and the subscribers deem it sufficient to say, those persons who have examined them, are satisfied that they are great and permanent improvements, well worthy the attention of manufacturers.

Orders (post paid) for these improvements, or either of them or for the right to use them in any section of the country, will be punctually attended to if addressed to either of the subscribers.

JOHN THORP,
JEREMIAH WHIPPLE,
THOS. & WM. FLETCHER.

Providence, R. I March 6, 1829. eo3m m7

Figure 3:

Advertisement of John Thorp, Jeremiah Whipple, and Thomas and William Fletcher, *Independent Chronicle and Boston Patriot* (Boston, Massachusetts), March 7, 1829.

ARCHIBALD DAVIDSON,
FANCY WEAVER.

AT his Shop about 50 rods south of Otis Eddy's Cotton Factory, and a quarter of a mile east of the village of Ithaca, respectfully informs the publick that he has purchased a patent right for the town of Ithaca, superiour to any patent heretofore in the United States, for weaving Carpets and Carpet Coverlets of any pattern or figure that can be wove in the United States; and the work not inferiour to any in Europe or America.

He will weave the owners' name, date of the month and year, if required. If the yarn is good, and not cut, he flatters himself that he will show and give better work than has ever been by any patent loom heretofore invented. From his long experience and practice in the weaving line in Scotland and in the United States, and the great expense he has been at in procuring a patent so valuable, he hopes to merit the publick patronoge.

Also, at his shop he weaves Broad Cloath, Sheeting, two and one half yards wide, in kersey or plain; Diaper of all kinds, and country work of every description done with punctuality and dispatch.

Yarn spun fo coverlets ought to be spun 3 runs to the pound, douled and twisted, and cotton, No. 7, doubled and twisted. Carpet yarn spun two runs to the pound, douled and twisted, or one run to the pound, single. And he likewise, for their accommodation, will, if rquried, get their yarn coloured to suit the pattern Ladies are requested to call and examine the work before tey engage their weaving.

Nov. 9, 1831. 43tf

Figure 4:

Advertisement of Archibald Davidson, *Ithaca Journal* (Ithaca, New York), November 9, 1831.