CONTROL NUMBER: AM-000130
CATALOG NUMBER: new

AUTHOR INFO:
TITLE: Patents relating to the Koreshan Unity
DATE: 26 January 1892 - 14 August 1900
BULK DATES:
FORM OF MATERIAL: Printed form

QUANTITY: 36
UNIT OF MEASURE: pages
DIMENSIONS: 8.5 x 11 in.

DESCRIPTION: This collection of Koreshan related patent applications includes nine seperate documents. They are -- 1. Oscillating Steam Engine by Frank Oliver; 2. Shaping Wood by Albert Ordway; 3. Wood and Rattan Twisting by Oscar Ordway; 4. Machine for twisting wood by Oscar Ordway; 5. Spring Rocking Chair by Albert Ordway; 6. Wood and Rattan Twist/Shape by Albert Ordway; 7. Twisting wood rods to Rope by Albert Ordway; 8. Shaping Wood by Albert Ordway; 9. Method of making Wood/Rattan Ropes by Albert Ordway.

HIST/BIO NOTES:
LOCAL NOTE:
CONDITION: e
CONSERVATION:

SUBJECT ADDED ENTRIES
PERSONAL NAME: Oliver, Frank
PERSONAL NAME: Ordway, Albert
PERSONAL NAME: Ordway, Oscar
CORPORATE NAME:
TOPICAL SUBJECT: Patents
ADDED ENTRIES
PERSONAL NAME: Hay, G. Earl
CORPORATE NAME: Koreshan Unity

To: Mike W
From Earl Hay Earl
Date: January 12, 1996
Subject: PATENTS RELATING TO KORESHANS
==========

Attached are copies of nine patents I obtained from the New York State Library in Albany, NY. They have some relation to the Unity, which has to be further documented.

Juan provided me with some basic information on three of these he found in the Patent Gazette, Ordway and Oliver. Margaret and I then checked the Gazettes available to us for other patents issued to the same name and found both Oscar and Albert Ordway listed. These were all related to the bending and twistiing of wood or ratan. There is some indication that these patents were turned over to Dr. Teed, but we found no transfer infoprmation in the short time we had to search.

Do you know which, if either, Ordway was married to Annie Ordway/Victoria ? The address given for the patentees was Framingham, Mass, which is not far from Gardner Mass. which was considered the "Chair Capitol" of the world;or at least New England. However Some of the technology, or at least the chair manufacturiing was probably done in Economy, Pa. at the Unity factory. The three advertisiing pages I have attached to #635,179, Spring Rocking Chair are some Juan found and not part of the patent records.

For future reference and for whatever worth I submit the followiing:

467,766	Oscillatiing Steam Engine	Frank Oliver
538,928	Shaping Wood	Albert Ordway
556,203	Wood and Ratan Twistiing	Oscar Ordway
595,199	Machine for twisting wood	Oscar Ordway
635,179	Spring Rocking Chair	Albert Ordway
637,652	Wood and Ratan Twist/Shape	Albert Ordway
650,269	Twisting Wood rods to Rope	Albert Ordway
655,889	Shaping Wood	Albert Ordway
656,040	Meth. Making Wood/Rat Ropes	Albert Ordway

For future referencea and research, do you know where in Florida, or the South, there is a Regional Patent collection like is in the New York State Library, in Albany? Naturaly I will be happy to trace down any further patent information anyone finds once we are back in Delmar.

CC:Jeanne Parks

398,671

THE KORESHAN UNITY PROPERTY

The entire property of the Koreshan Unity is worth at a conservative estimate $275,000. It consists of the following:

About 7000 acres in Florida. Some of this land (about 20 acres) is worth $1000 per acre; 50 acres of the fruit are worth $200 per acre; 150 acres adjacent are worth $100 per acre; and 1,000 acres of it are worth $15.00 per acre. The balance is worth at present $5.00 per acre.

This makes a total land valuation of	$88,000
Buildings and machinery in Fla.	65,000
" " " " Bristol, Tenn.	85,000
Publishing business in Fla.	40,000
Mdse. and miscellaneous items	5,000
Patents (twisted wood and chair patents)	20,000
Total	$303,900

Brief Description of Company's Patents

1. No. 426053, dated April 22, 1890, Spring Rocking Chair.
2. No. 498140, dated May 23, 1893, for chair frame.
3. No. 538928, dated May 7, 1895, for shaping wood.
4. No. 556203, dated March 10, 1896, wood or Rattan Twisting Machine.
5. No. 595199, dated Dec. 7, 1897, machines for twisting wood.
6. No. 603965, dated May 10, 1898, Dowel Making Machines.
7. No. 635179, dated Oct. 17, 1899, Spring Rocking Chair.
8. No. 637652, dated Nov. 21, 1899, Wood or Rattan Twisting or Shaping Devices.
9. No. 650269, dated May 22, 1900, Process for Twisting Wooden Rods into rope form.
10. No. 655889, dated Aug. 14, 1900, Shaping Wood.
11. No. 656040, dated Aug. 14, 1900, method of making wood or Rattan ropes.

Aside from the above we have expert men working on marine engines, wireless Telephone and Telegraphy, which are patentable; and in the wood-working line, a great variety of specialties which are made and placed upon the market without patenting.

THE KORESHAN UNITY, INC.

The Koreshan Unity is a legal corporation, holding a charter under the laws of the State of New Jersey, dated Sept. 26, 1903. It is capitalized at $200,000, with authority to issue twenty thousand shares, the par value of which is $10 each.

The stock is all "treasury" stock, none of it being held by individuals from the beginning, in exchange for property, as is usually the case in stock companies. The entire stock in the treasury represents the entire property, and when it is all issued, each holder will have paid the same for it, and will own the undivided proportionate part of the property. The common stock is held for control, but receives no dividends. The Coöperative Stock is held only by the active industrial workers. The 7% stock is held for investment.

PATENTEE	DESC	NUMBER	DATE	SPEC	DR	GAZETTE VOL	GAZETTE PG
ORDWAY	TWISTING WOOD, INTO ROPE FOR.	650,269	1900 MAY 22	3533	784	91	1567
X	SHAPING WOOD	655 889	AUG 14	1380	318	92	1322
	MAKING WOOD + RATAN ROPE	656 040	AUG 14	1687	389	92	1382
	TWISTING WOOD	595 199	1897 DEC 7	636	152	81	1738
	WOOD + RATAN TWISTING	556,203	MAR 10 '96	1284	300	74	1386
ORDWAY ALBERT	SHAPING WOOD	538 928	MAY 7 95	499	125	71	850
ORDWAY ALBERT	WOOD + RATAN TWISTING OR SHAPING DEVICE	637 652	FILE JUNE 26 99			OCT 17 99	
"	SPRING ROCKING CHAIR	635 179	F July 21 '99				
OLIVER FRANK	OSCILLATING STEAM ENGINE	467 766	FILED JUNE 8 '91				

$4^{9} / 34 \times {}^{\$}.10 = {}^{\$}3.40$ (wood ...)

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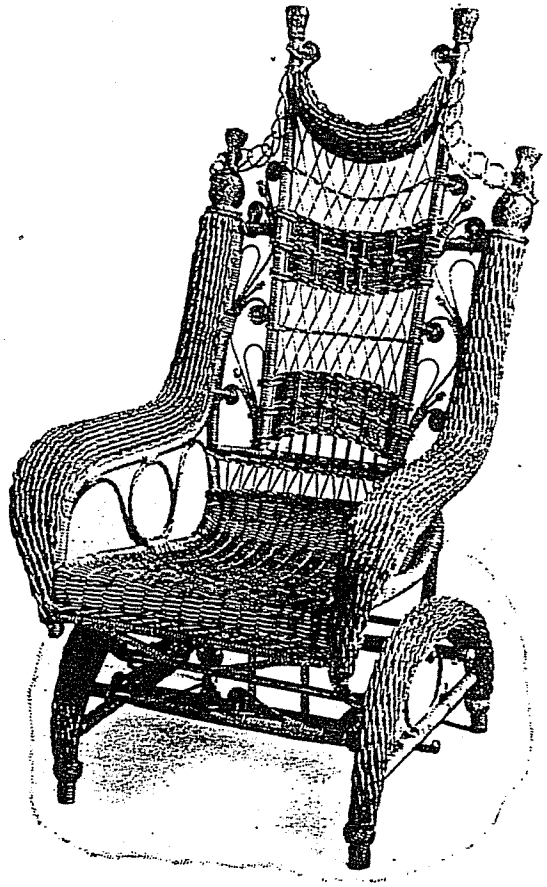
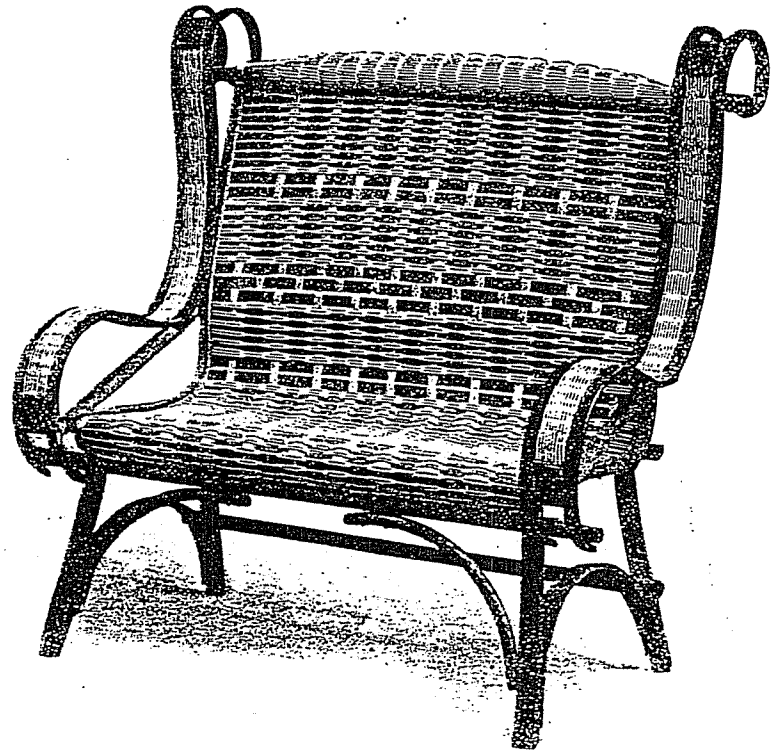


Mr. E. B. Webster, Manager of Bristol Branch of Koreshan Unity Co-operative, while Sales Manager for the A. H. Ordway Company, sold over $100,000 worth of this single design of chair direct to the consumer. It is patented, and the Koreshan Unity owns the patent.

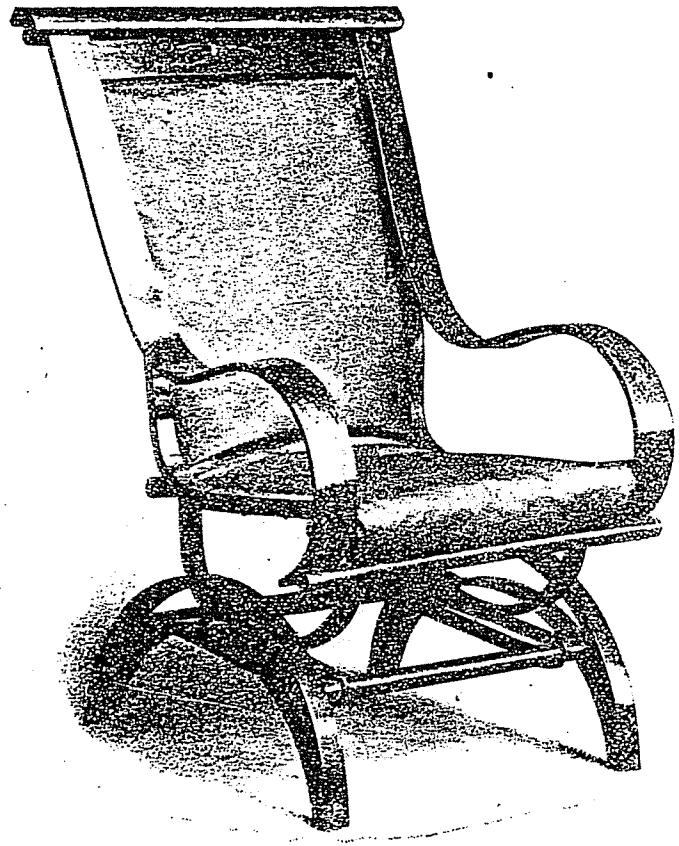
Mirror and Hall Seat

This piece shows how the darker woods, such as oak, mahogany, and walnut, beautifully contrast with the almost pure white hickory reeds. It is a good seller, and at large profits.

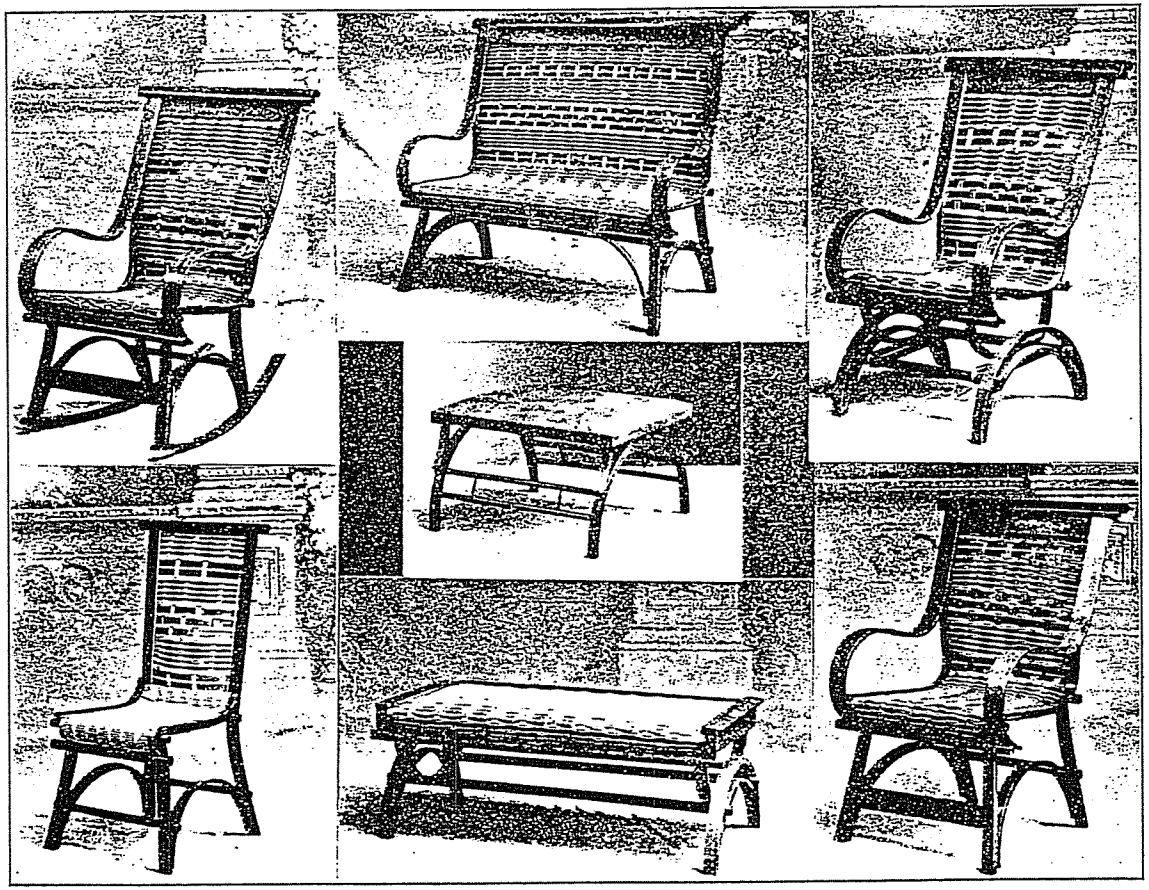


No. 29 SETTEE

Here is a plain but artistic piece of furniture, made of all bent stock, without a glue joint in it, and put together with screws. Has "full roll" of white hickory reeds for head-rest, and with a "home made" cushion it will grace any parlor or sitting room. 48 ins. long, 47 ins. high, 26 ins. deep. This piece sells fast at $6 each, wholesale; retail, at $8 to $10, and can be made in lots of 200 by the Koreshan Unity, at $2.75 each. If we were obliged to purchase imported reeds for this settee, and buy our bent stock the same as most manufacturers do, the stock alone would cost almost or quite as much. Here, in a "nut shell," is how we can pay 7 per cent on our preferred stock, and make all the co-operators rich beside.



This chair is a patented Library, sitting room or office base rocker. **It is the only upholstered chair we know of in the market which does not show "gimp" or tacks.** It is made entirely of bent wood. It has the "Ordway" (patented) spring, which is owned and controlled by the Koreshan Unity.



Bent Wood Furniture

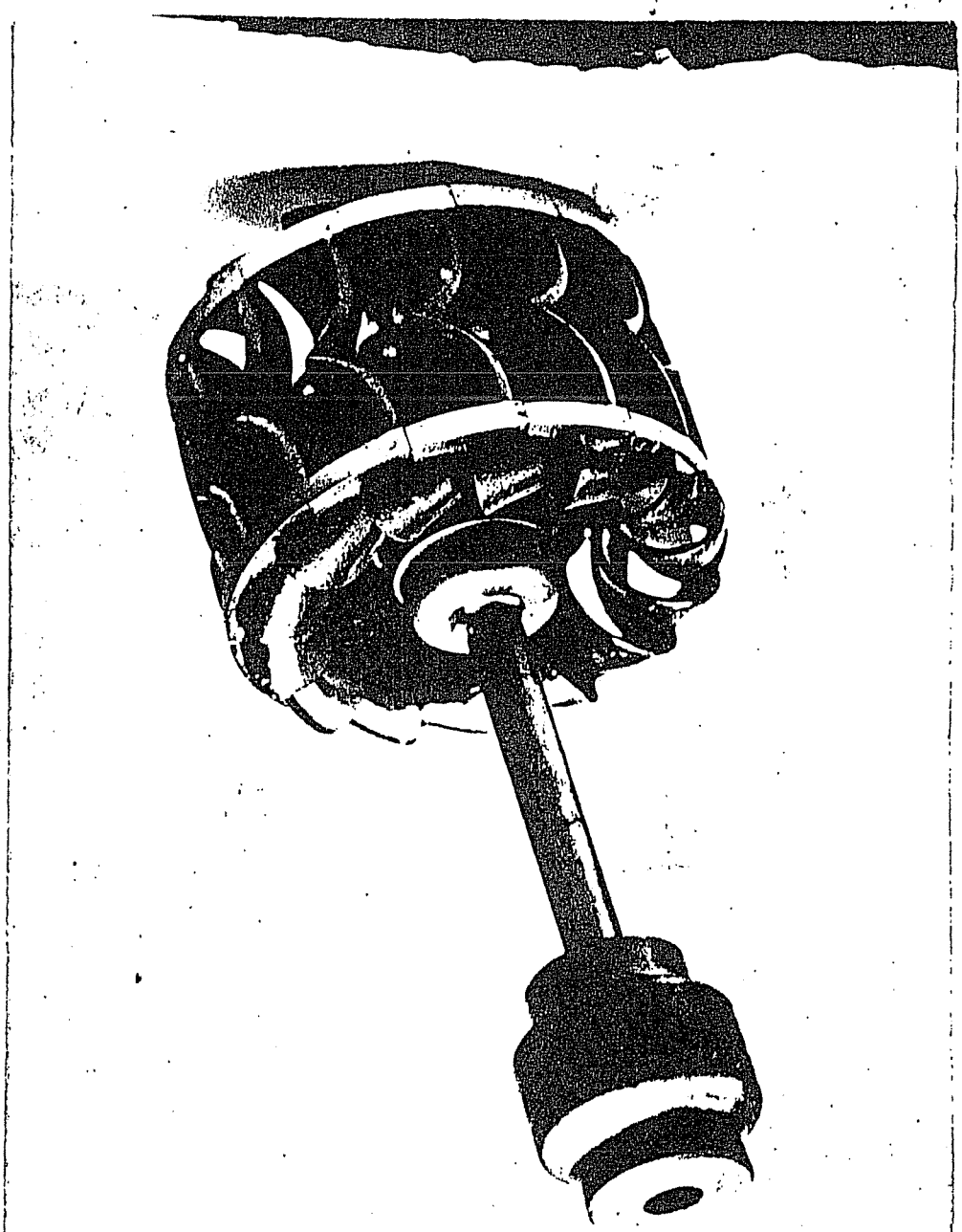
This cut shows a few bent wood pieces, made by the Koreshan Unity. Everything entering into their construction, except screws, is produced by the Unity. The bent wood "Base-Rocking Chair" shown in the right hand corner is beyond question the best and strongest base-rocking chair ever put on the market. It is the only base-rocking chair that was ever guaranteed by the manufacturer. OUR GUARANTEE. We hereby guarantee our No. 26 Base-Rocker, under ordinary usage, against breakage of arms, rockers, springs, base or frame-work, for a period of five years, and agree to replace the same free of charge, should they break.

The Koreshan Unity is splendidly equipped for manufacturing all kinds of bent wood furniture. Improved bending machinery, run by electric power, is used, so that large quantities of bent stock may be turned out per day.

Uses to Which the Reeds May Be Put

Oak and hickory reeds are used to make reed chairs, settees, divans, sofas, lounges, baby carriages, cradles, cribs, stools, lawn-chairs, car seats, waste baskets, clothes baskets, market baskets, heavy meat baskets, Madagascar grass baskets, Indian basket work, grill work of great variety, office fixtures, whips, canes, hat frames, toys, and in a great variety of places where some bending material is used as a frame-work.

Only a few of the many articles of furniture made by the Koreshan Unity are shown in this prospectus, but enough have been shown to convince the most skeptical that oak and hickory reeds made by our patented machines, may take the place of imported rattan reeds, and that our twisted woods will be the source of large profits to the Company.



CHARLES S. WHITMAN. ERNEST WILKINSON. CABLE ADDRESS, "WHITMAN, WASHINGTON."

WHITMAN & WILKINSON,
COUNSELLORS AT LAW AND SOLICITORS OF PATENTS,
ROOMS 55 AND 57 ATLANTIC BUILDING,
928 AND 930 F STREET N. W.
TELEPHONE 1233.

Washington, D. C., Jan. 26, 189 2

Frank Oliver, Esq.,

Dear Sir:-

We en lose herewith the assignment from yourself to Dr. Teed, duly recorded in Liber H 45, page 383, of Tranfers of Patents.

Yours very truly,

(Dictated)

Whitman & Wilkinson

V467,766 Jan. 26. 92

ASSIGNMENT.

Whereas, I, Frank Oliver, formerly of Economy, in the County of Beaver, and State of Pennsylvania, have invented certain new and useful improvements in Oscillating Steam Engines, for which I have made application for letters patent of the United States on the 23d. day of June, 1891, Serially Numbered 396,738;

And whereas, C. R. Teed, M. D., residing at Chicago, in the County of Cook, and State of Illinois, is desirous of acquiring an interest therein, and in the letters patent to be obtained therefor;

Now, therefore, to all whom it may concern, be it known, that for and in consideration of One Dollar, ($1.00) to me in hand paid, the receipt whereof is hereby acknowledged, I have assigned, sold and set over, and by these presents do hereby assign, sell and set over, unto the said C. R. Teed, the full and exclusive right, title, and interest in and to the said invention as fully set forth and described in the specification executed by me preparatory to obtaining letters-patent therefor; and I hereby authorize and request the Commissioner of Patents to issue the said letters-patent to the said C. R. Teed, as the assignee of all my right, title, and interest in and to the same for his sole use and behoof, and for the use and behoof of his legal representatives.

In testimony whereof, I hereunto set my hand, and affix my seal, this the 4th day of January, 1892.

Frank Oliver

Mark A. Foote.

Herman Moller Witnesses.

UNITED STATES PATENT OFFICE.

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

SPRING ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 635,179, dated October 17, 1899.

Application filed July 21, 1899. Serial No. 724,610. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, residing at South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Spring Rocking-Chairs, of which the following is a specification.

This invention relates to improvements on the patent for spring rocking-chairs granted to Oscar H. Ordway April 22, 1890, numbered 426,053; and it consists in an improved manner of connecting the rocker to the free end of the spring, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a vertical section of the improved spring rocking-chair. Fig. 2 represents a plan view of the base and its springs. Fig. 3 represents a cross-section on the line 3 3, shown in Fig. 1. Fig. 4 represents an enlarged detail cross-section of the rocker, its spring, and connecting device. Fig. 5 represents a modification of such spring and rocker-connecting device, and Fig. 6 represents a similar spring and rocker-connecting device shown as applied to a concave metal rocker.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, Figs. 1, 2, 3, and 4, A A represent the sides of the base, which are held together at a proper distance apart by means of stays, rounds, or braces a, a', and a'', as shown, said stays being firmly secured to the base parts A A in any suitable or well-known manner.

a^3 a^3 are rounds or braces connected and secured to the stays a' a'', as usual.

B B represent the curved rockers, secured to or forming parts of the chair-frames B' B', and C represents the seat, as is common in spring rocking-chairs.

b b are stays or braces for securing the rockers together at a proper distance apart.

In connection with the stationary base and the curved rockers I use a pair of springs, portions of which serve as tracks on which the chair is supported and rocked in a manner similar to that shown and described in the aforesaid patent. Each such spring consists of a spring-metal bar d, which is secured in one end at d' in a suitable manner to the round a' or other stationary part of the base. Said spring-bar is made straight, or nearly so, between the rounds a' and a'' and provided with a semicircular, or nearly so, bend d'', going around a portion of the stationary brace a'', said spring terminating below the rocker as a yielding rod d^3 in a manner similar to that shown and described in the above-mentioned patent. In said patent the free end of the spring-rod d^3 is shown as being bent inward out of alinement with the track portion d and connected to the inside of the rocker by means of a link arranged on one side of said track and rocker, and this is objectionable, inasmuch as it is liable to distort the track portion from a true linear direction during the rocking motion of the chair, and to obviate such difficulty I arrange the free end d^3 of the spring directly below the track portion d and connect the rockers B B to the free ends d^3 of the springs by means of suitable links or bails e e, as shown in Figs. 1, 3, and 4. Said bail or link may be made in the form of an elongated ring, as shown in Fig. 4, or it may be made in the form of a U-shaped bail having its upper ends riveted or otherwise connected to the rocker B, as shown in Fig. 5.

In practice I prefer to make the rocker of bent wood; but it may be made of curved metal similar to a bicycle-rim, as shown in Fig. 6, and adapted to rock on the track d without departing from the essence of my invention.

When the rocker B is made of wood, I make on its under side a longitudinal groove b', (shown in Figs. 4 and 5,) which serves as a guide relative to the track d when the chair is rocked in a manner like that shown and described in the above-mentioned patent.

By rocking the chair forward and back the free end d^3 of the spring will cause the chair to be automatically returned to its normal position as soon as the occupant ceases to press forward or back on the chair-body. In this my device the free ends d^3 of the springs serve as a stop device against the under side of the track portions d d, so as to limit the rocking motion of the chair in its forward-and-back motion, and I thus dispense with any auxiliary stop devices for this purpose.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

The herein-described rocking-chair comprising the base A, A, the stay or brace a'', and rockers B, B, in combination with springs each consisting of a substantially straight upper portion d, a looped portion d'' at one end, and a substantially straight lower portion d^3, each of said springs being attached at one end to the base, its looped portion encircling the stay or brace a'', and its lower free portion lying in the same vertical plane with and directly beneath the upper straight portion d, and a bail e connecting said free end of the spring to the rocker, substantially as described and for the purpose specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
MARGARET E. DALEY.

No. 635,179. Patented Oct. 17, 1899.

A. H. ORDWAY.

SPRING ROCKING CHAIR.

(Application filed July 31, 1899.)

(No Model.)

Fig. 3.

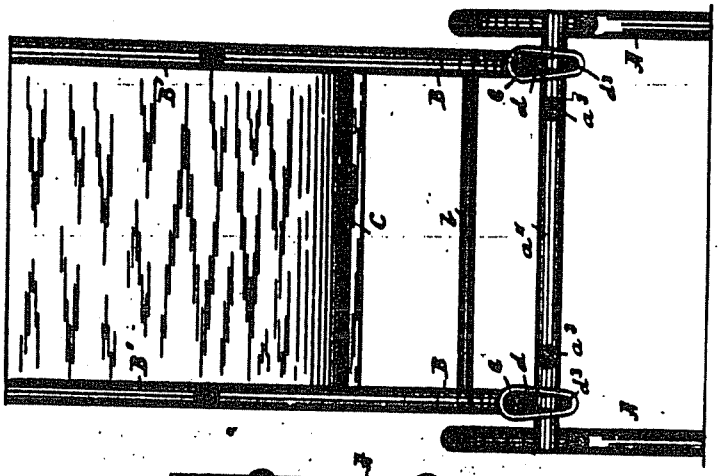


Fig. 5.

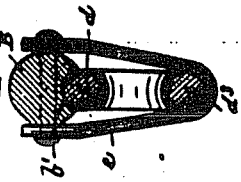


Fig. 2.

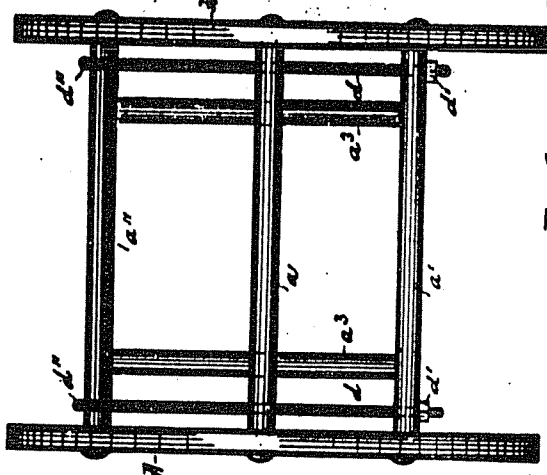


Fig. 6.

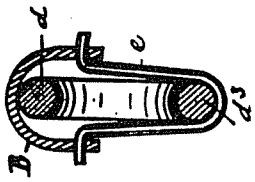


Fig. 1.

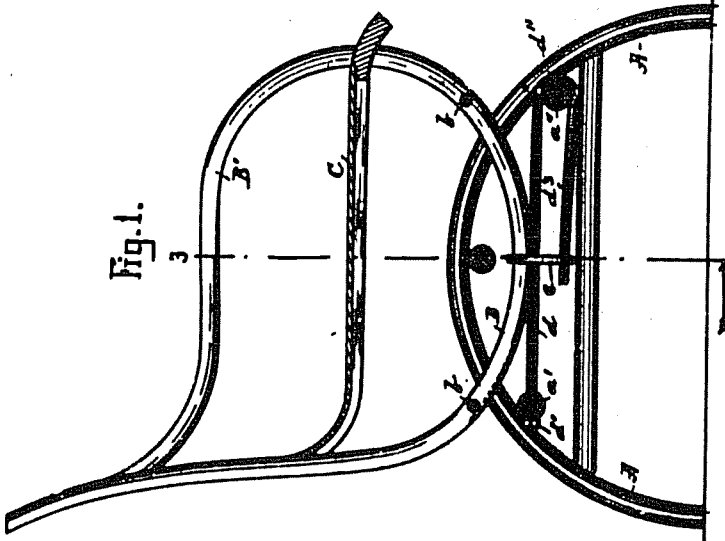
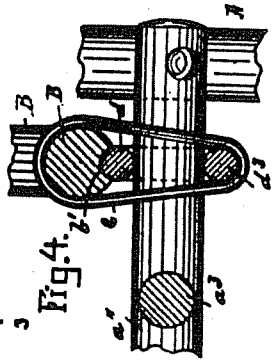


Fig. 4.



Witnesses.

Laintz N. Miller

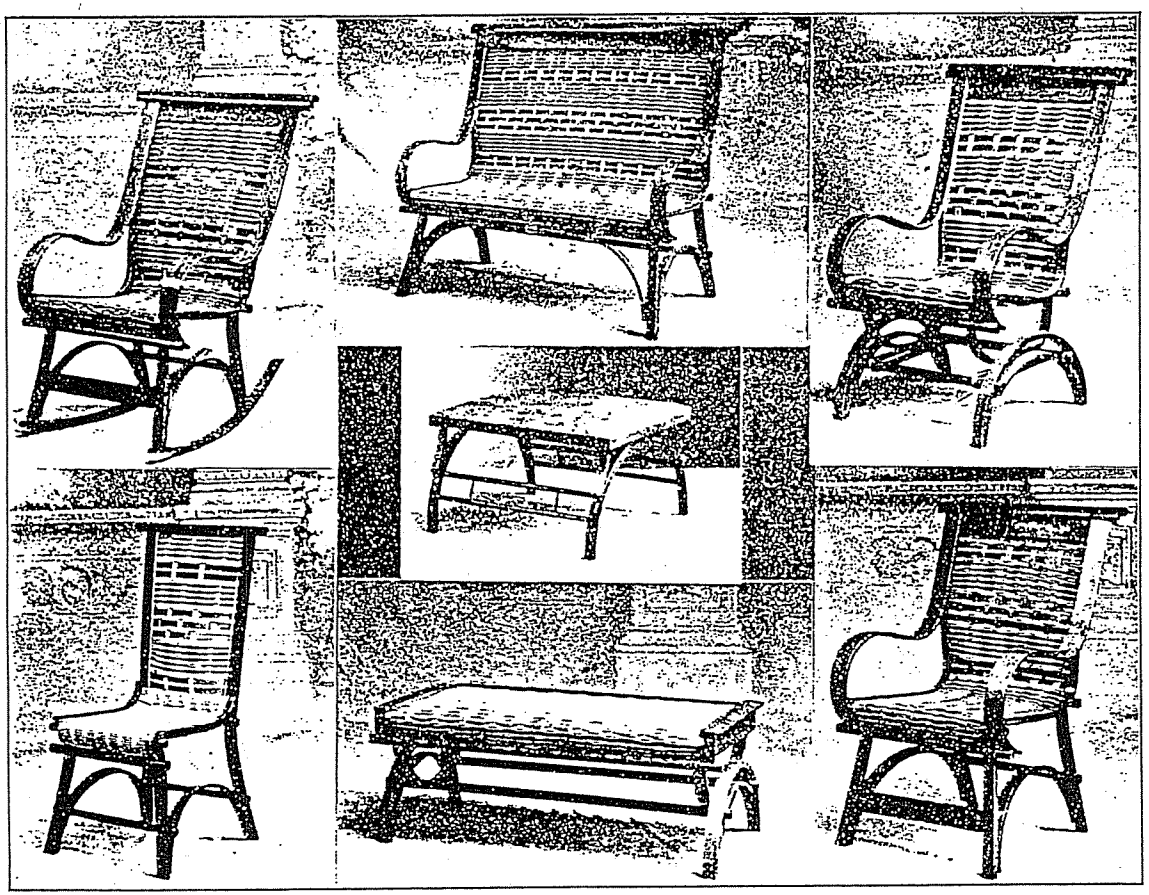
Sydney Harris

Inventor.

Albert H. Ordway

by Albert Fredrick

his atty.



Bent Wood Furniture

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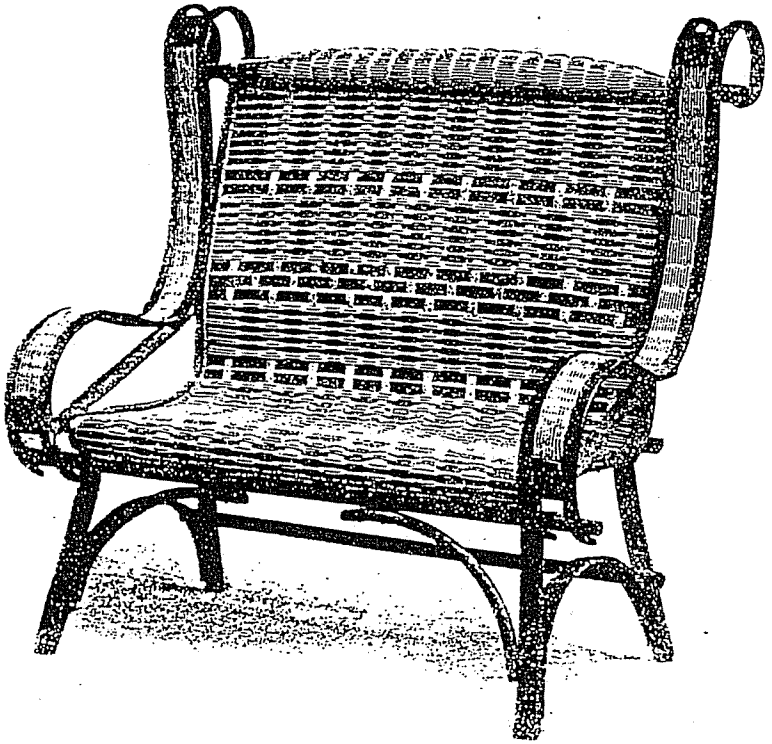

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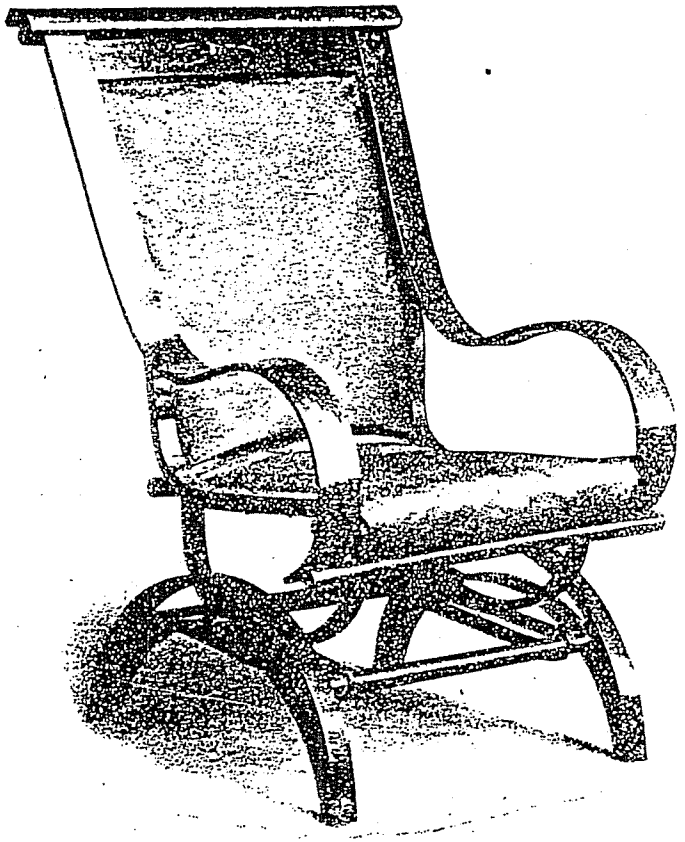

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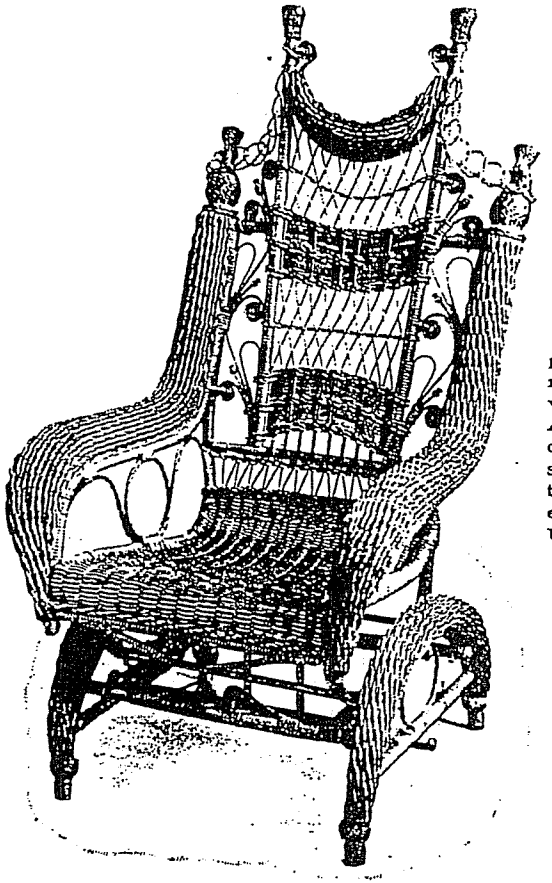
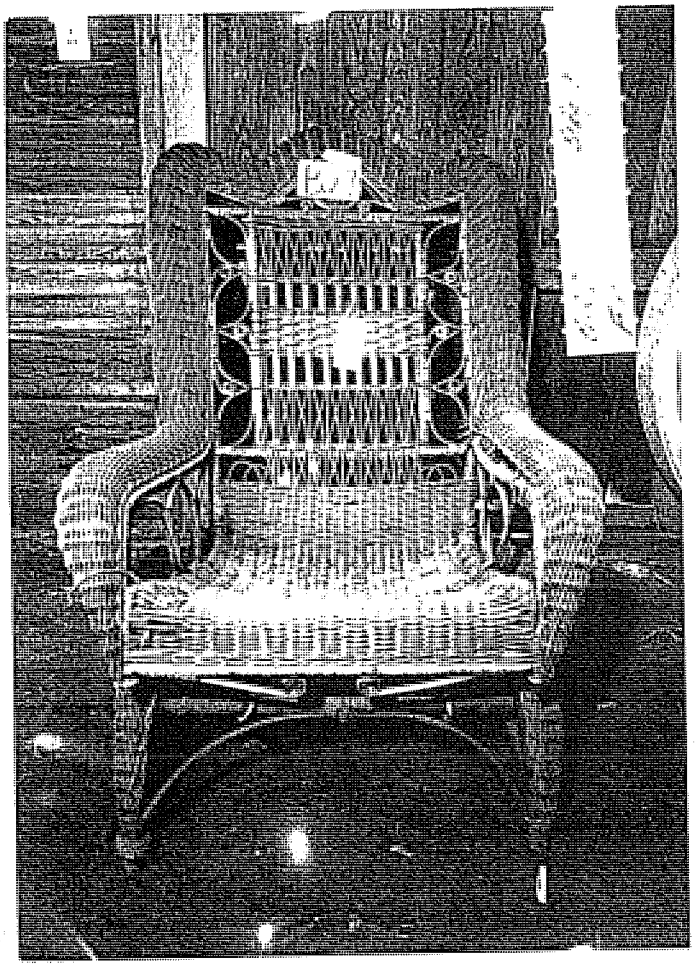
Chairs built to suit these days

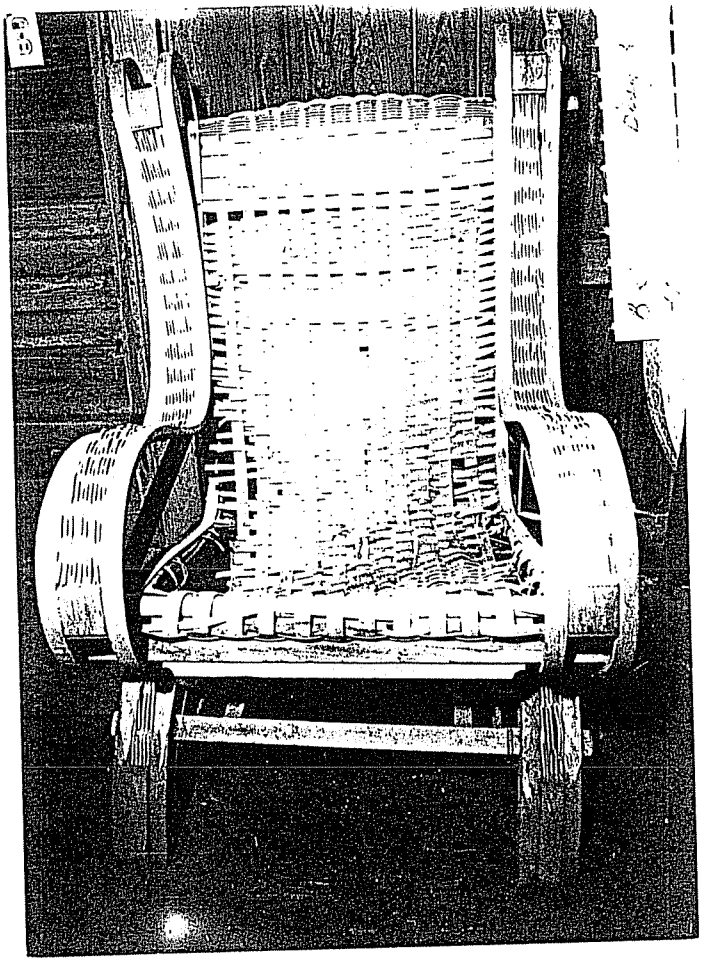


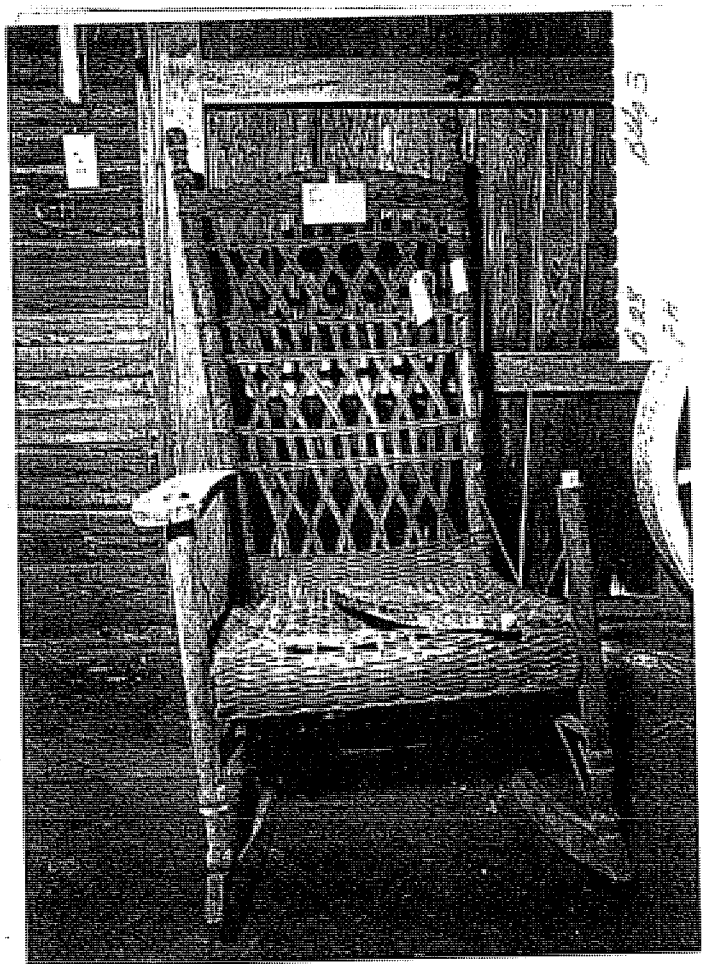
Mr. E. B. Webster, Manager of Bristol Branch of Koreshan Unity Co-operative, while Sales Manager for the A. H. Ordway Company, sold over $100,000 worth of this single design of chair direct to the consumer. It is patented, and the Koreshan Unity owns the patent.

Mirror and Hall Seat

This piece shows how the darker woods, such as oak, mahogany, and walnut, beautifully contrast with the almost pure white hickory reeds. It is a good seller, and at large profits.







UNITED STATES PATENT OFFICE.

FRANK OLIVER, OF ECONOMY, PENNSYLVANIA.

OSCILLATING STEAM-ENGINE.

SPECIFICATION forming part of Letters Patent No. 467,766, dated January 26, 1892.

Application filed June 18, 1891. Serial No. 396,738. (No model.)

To all whom it may concern:

Be it known that I, FRANK OLIVER, a citizen of the United States, residing at Economy, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Oscillating Steam-Engines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to oscillating steam-engines; and it consists of certain novel features herein described and claimed.

Reference is had to the accompanying drawings, wherein the same parts are indicated by the same letters.

Figure 1 represents a side elevation of the engine. Fig. 2 represents a section along the line $x\,x$ of Fig. 1, looking to the left. Fig. 3 represents a section through the plane, including the axis of the cylinder and that of the trunnions. Fig. 4 represents the guide for the valve-stem to take the wear off the gland. Fig. 5 represents a side elevation of the device for shifting the eccentric. Fig. 6 represents a view of the same, partly in section, along the axis of the shaft.

The frame A is mounted on the bed B and supports the hollow trunnions C of the cylinder D.

D′ is the steam-chest, which is either bolted to or cast integral with the cylinder D. This steam-chest contains the ordinary slide-valve E, connected to the valve-stem F. The ports d' lead from the steam-chest to the cylinders, as usual, while the exhaust-port d^2 communicates with a passage d^3, which is contained in the shell of the cylinder beneath the ribs D^2. The steam entering the steam-chest from the pipe C′ and hollow trunnion adjacent thereto passes into the cylinder through the steam-port, while the exhaust-steam passes through its port, the exhaust-port d^2, the passage d^3 in the shell of the cylinder, and leaves the opposite trunnion by the pipe C^2.

The valve-rod F passes through the stuffing-box f and guide G, and is attached at f' to the yoke F′, which is connected by the rod F^2 to the eccentric-strap F^3. The valve-rod is mounted on the opposite side of the oscillating cylinder from the shaft II in order that the maximum angle between the piston and eccentric rods may be made as small as possible. The yoke F′ and guide G are both supplied, in order to prevent too great lateral pressure on the gland f, due to the varying and unavoidable angularity of the eccentric-rod with the piston-rod. This guide G consists of two separate symmetrical pieces g and g', each having rounded shoes g^4, held firmly on the top of the piston-head by screws g^6, passing freely through holes g^7 in the said shoes. The outer ends of these pieces g and g' come together snugly, forming a cylindrical hole g^2, through which the valve-stem passes, surmounted by a cup-shaped cavity g^5 for the reception of oil or other lubricants. The screw-bolt g^5 holds the two pieces g and g' firmly together. When it is desired to take out the gland f for any reason, by taking out the bolt g^5 and swinging the parts g and g' back on the pivots g^6 the gland may be readily reached.

In order to provide for reversing, which will be necessary whenever the herein-described engine is adopted for use as a marine-engine and for the various other applications of the engine in which reversing becomes desirable, I have the devices illustrated in Figs. 5 and 6, wherein F^4 represents the eccentric in the form of a hollow ring loosely inclosing the shaft II, but set at some distance therefrom.

F^5 represents a disk partially open to the rear and having a dovetail slot in the face thereof, in which the slide f^4 engages. This slide is either rigidly attached to or integral with the eccentric. The disk F^5 has a hub f^5 keyed to the shaft II. A collar F^6 moves longitudinally on the shaft II, but is held against turning by means of a stud or lug engaging in the groove h in the shaft II. On one end of this collar F^6 a loose collar F^7 is fitted, held between the flanges f^6. To this loose collar F^7 the hand-lever F^8, with fixed pivot f^8, is attached. The rod R, having the arm r, is slotted at r', where it is pivoted to the slide f^4. At r^2 it is pivoted to the hub f^5, keyed on the shaft II, and at r^3 to the rod R^2, pivoted at r^4 to the sliding collar F^6. It will be seen when the lever F^8 is moved to the right that the sliding collar F^6 will be forced to the left

and the connecting-rod R^2 will push back the arm r and throw up the slotted arm r', which carries the slide f^4 and eccentric F^4 along with it. By moving the lever F^8 in the opposite direction the eccentric will be lowered or the engine reversed. It will be seen that the lever F^8 will move the eccentric irrespective of the position of the valve in the steam-chest.

This device for shifting the eccentric will be claimed in a divisional application.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In an oscillating steam-engine, the combination, with a main shaft, of a cylinder having the two hollow trunnions and a steam-chest and exhaust-passage connected to the said trunnions, a slide-valve working in said steam-chest, a valve-rod moving in suitable guides connected to said valve on the opposite side from the said shaft, a yoke inclosing the said steam-chest connected to said valve-stem, and an eccentric rod and strap connected to an eccentric on said shaft, with means for shifting said eccentric, substantially as described.

2. In an oscillating steam-engine, the combination, with the cylinder D, having ports d, d', and d^2, exhaust-passage d^3, and hollow trunnions C, of the steam-chest D', a slide-valve contained therein, the valve-rod F, connected to said slide-valve, the guide G, having two hinged arms bolted together, for said valve-rod, the yoke F', connected to said valve-rod, and the eccentric-rod, eccentric-strap, and eccentric connected to said yoke, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK OLIVER.

Witnesses:
H. FISCHERN,
D. B. TURNER.

(No Model.) 2 Sheets—Sheet 1.

F. OLIVER.

OSCILLATING STEAM ENGINE.

No. 467,766. Patented Jan. 26, 1892.

Fig. 1.

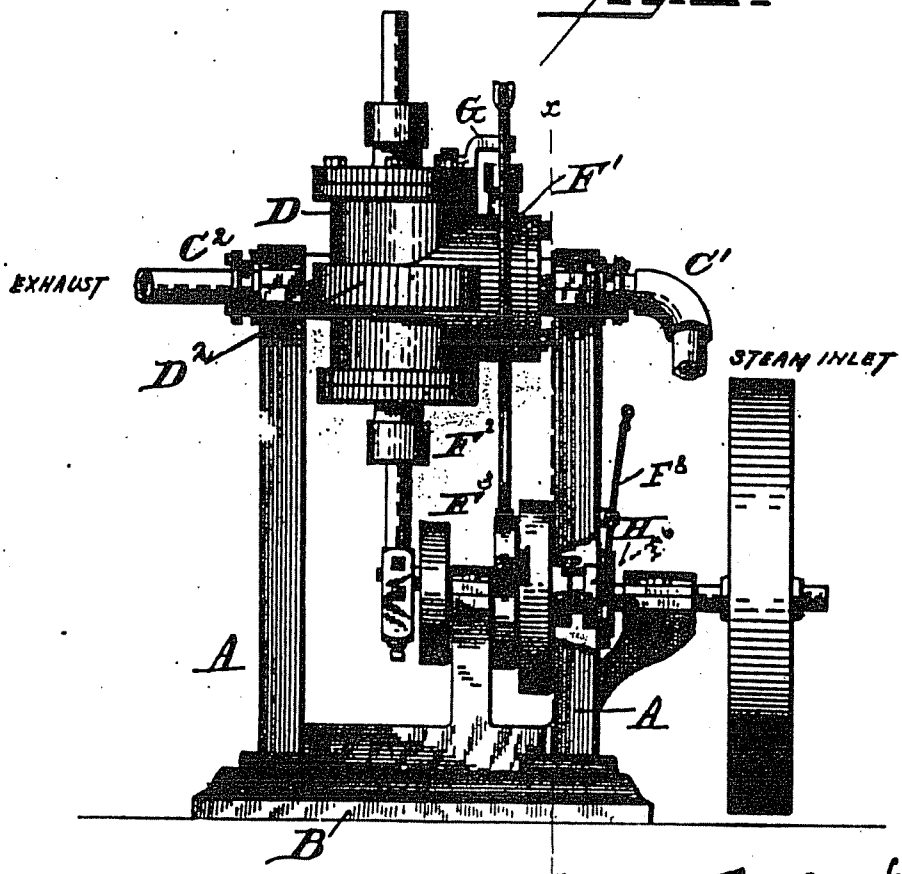


Fig. 4.

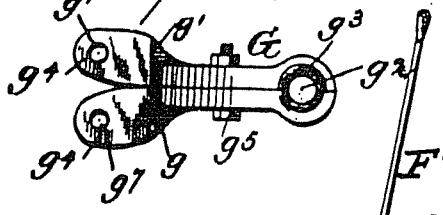


Fig. 6

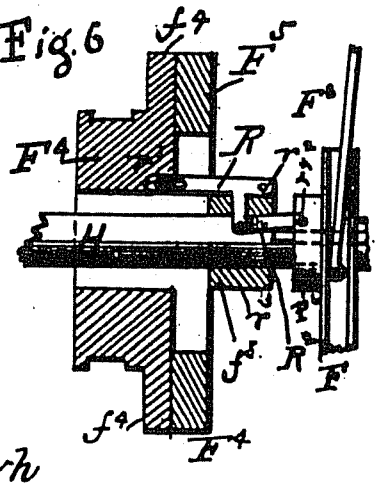


Fig. 5.

WITNESSES
F. L. Durand.
J. C. Wilson

INVENTOR
Frank Oliver,
by
Whitman & Wilkinson
Attorneys

F. OLIVER.

OSCILLATING STEAM ENGINE.

No. 467,766. Patented Jan. 26, 1892.

Fig. 2.

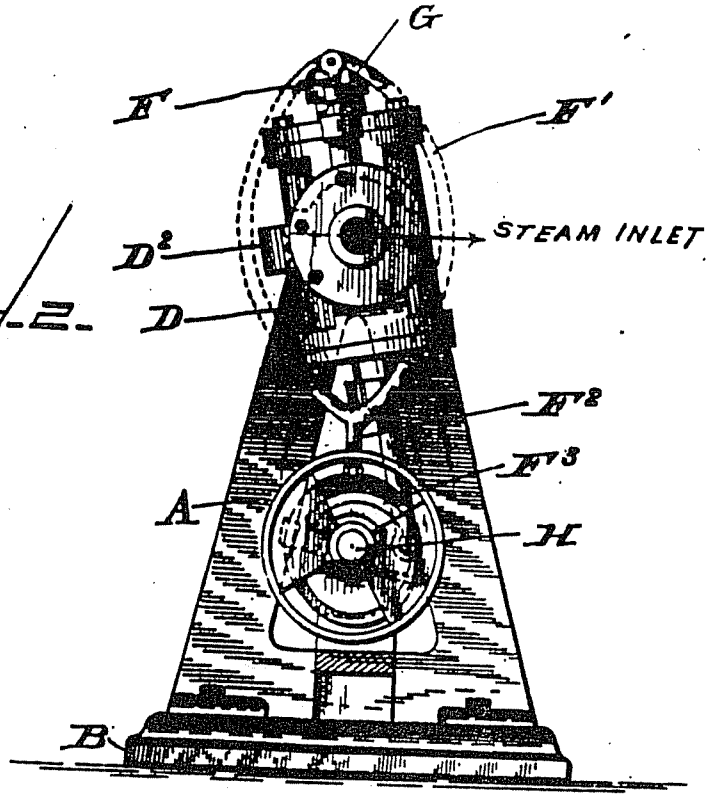
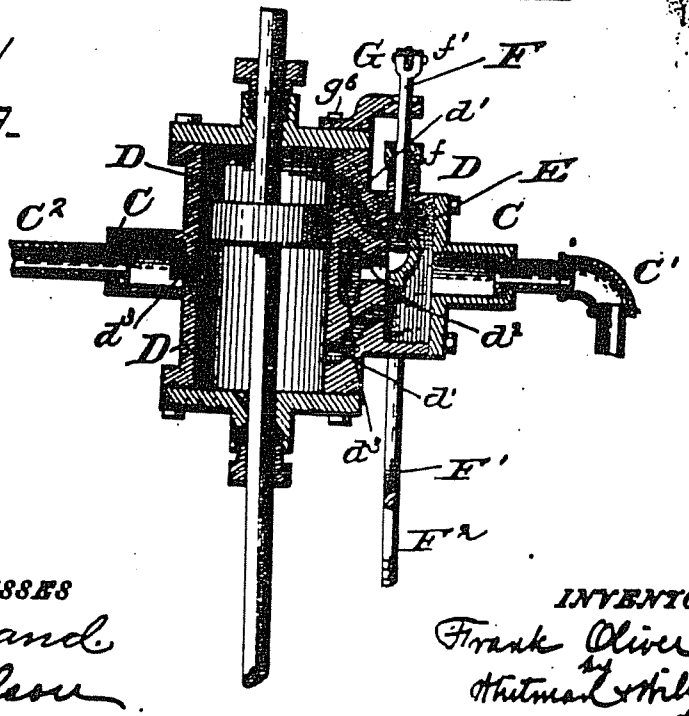


Fig. 3.



WITNESSES

F. L. Ourand.

J. C. Wilson

INVENTOR

Frank Oliver

by Whitman & Wilkinson

Attorneys

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

SHAPING WOOD.

SPECIFICATION forming part of Letters Patent No. 655,889, dated August 14, 1900.

Application filed March 13, 1900. Serial No. 8,519. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, residing at No. 15 Union avenue, South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Shaping Wood, of which the following is a specification.

This invention relates to improvements in shaping wood for making scrolls suitable for furniture, screens, or other articles, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents an end view of the shaping-block which I use in shaping the wood for making scrolls. Fig. 2 represents a top plan view of Fig. 1, showing the cover removed. Fig. 3 represents a top plan view similar to Fig. 2, showing the scroll of the wood formed in the shaping-block. Fig. 4 represents a modification of the shaping-block, showing a spiral guide arranged therein. Fig. 5 represents a cross-section on the line 5 5 in Fig. 3, showing the cover removed. Fig. 6 represents a cross-section similar to Fig. 5, showing a modification of the shaping-block. Fig. 7 represents a wood rod or blank previous to being shaped, and Fig. 8 represents the same after being shaped and made into scroll form.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, Figs. 1, 2, 3, 4, 5, and 6, A represents the shaping-block, having a guide-tube B communicating with a preferably-cylindrical or similarly-shaped cavity C, which I term the "scroll former or receiver." In practice I prefer to hinge to said shaping-block A at *d d* the cover D, which during the shaping operation may be secured to the block A by means of a screw E, passing loosely through a perforation A' in the cover D and screwed into a screw-threaded perforation in the block A, as shown in Figs. 1, 5, and 6.

F in Fig. 7 represents the wooden rod, preferably provided with a reduced or tapering portion *f*, which is to be shaped into scroll form F', as shown in Figs. 3, 4, and 8.

It is not essential that the scroll former and receiver C should be made wholly in the block A, with a flat cover D fitting over such scroll former and receiver, as, if so desired, the scroll former and receiver may be made partially in the block A and cover D, as shown in Fig. 6, without departing from the essence of my invention.

The operation is as follows: I take a wood rod, either in the green state or previously steamed or moistened, and force its end through the guide-tube B into the scroll-former C, thereby causing the rod to be shaped into scroll form, as shown in Fig. 3, and it is held in such shaped condition within the shaping-block until it is dry and set, when it may readily be removed by releasing and swinging open the cover D of the scroll-former block A.

If so desired, I may secure to the interior of the scroll former or receiver C a helical guide-rib G, adapted to serve as a guide during the formation of the scroll on the wooden bar while forced into such scroll former and receiver during the process of forming the scroll. Such helical guide-rib may be more or less thick, according to the space that may be desired between the convolutions of the scroll.

What I wish to secure by Letters Patent, and claim, is—

1. The herein-described device for making scrolls on bars of wood, consisting of a shaping-block, having a guide-tube and having connected thereto a scroll-former into which the wooden bar is forced, and caused to be formed into a scroll form, substantially as and for the purpose set forth.

2. The herein-described device for making scrolls on bars of wood, consisting of a shaping-block having a guide-tube, and having connected thereto a scroll-former, provided with a helical guide-rib, serving as a guide for the formation of the scroll of the wood bar when forced into said scroll-former substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
WILLIAM B. C. NOYES.

No. 655,889. Patented Aug. 14, 1900.

A. H. ORDWAY.

SHAPING WOOD.

(Application filed Mar. 18, 1900.)

(No Model.)

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Fig. 5.

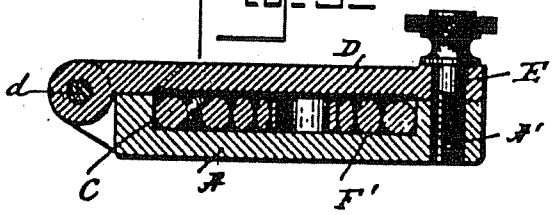


Fig. 6.

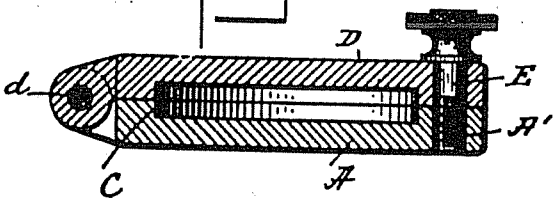


Fig. 7.

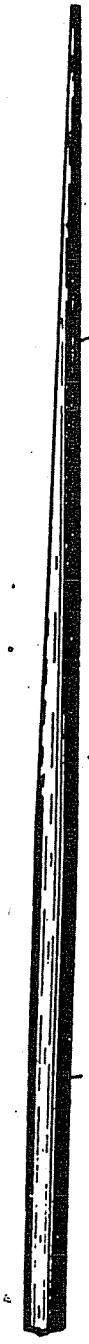
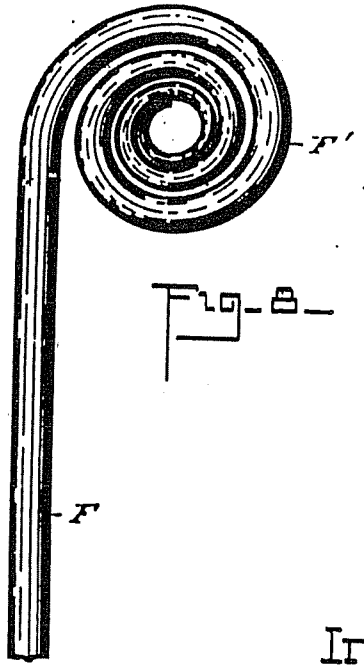


Fig. 8.



Witnesses

David Brunker.

Charles F Logan

Inventor

Albert H. Ordway

by Albert Andrews his atty

(No Model.)

2 Sheets—Sheet 1.

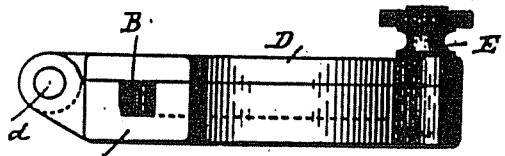


Fig-1-

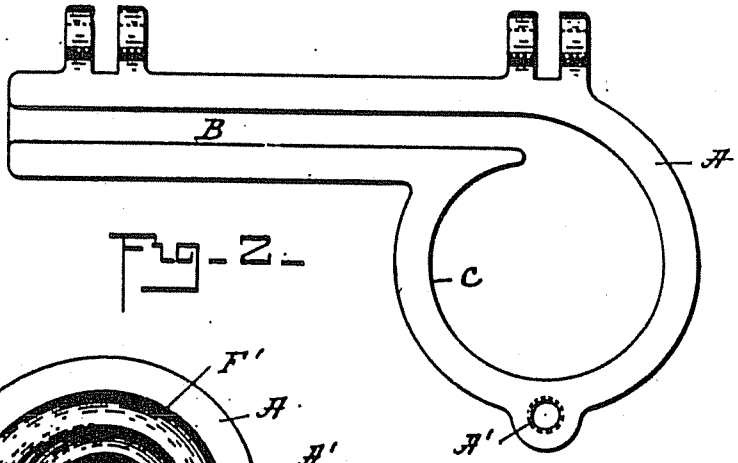


Fig-2-

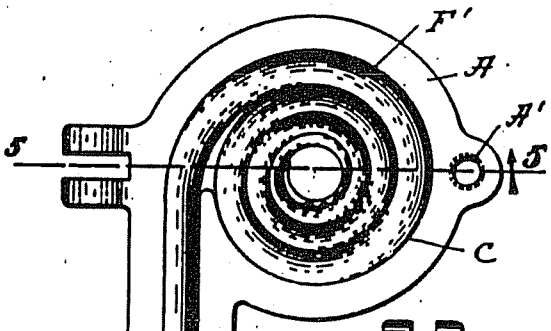


Fig-3-

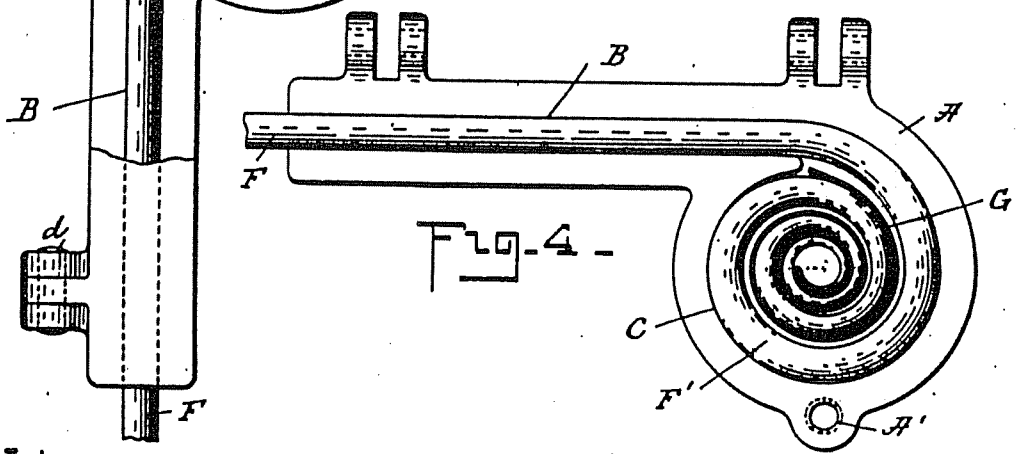


Fig-4-

Witnesses

David Dewhurst

Charles F. Logan

Inventor

Albert H. Ordway

by Albert Andrews, his atty

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

SHAPING WOOD.

SPECIFICATION forming part of Letters Patent No. 655,889, dated August 14, 1900.

Application filed March 13, 1900. Serial No. 8,519. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, residing at No. 15 Union avenue, South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Shaping Wood, of which the following is a specification.

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In the drawings, Figs. 1, 2, 3, 4, 5, and 6, A represents the shaping-block, having a guide-tube B communicating with a preferably-cylindrical or similarly-shaped cavity C, which I term the "scroll former or receiver." In practice I prefer to hinge to said shaping-block A at *d d* the cover D, which during the shaping operation may be secured to the block A by means of a screw E, passing loosely through a perforation A' in the cover D and screwed into a screw-threaded perforation in the block A, as shown in Figs. 1, 5, and 6.

F in Fig. 7 represents the wooden rod, preferably provided with a reduced or tapering portion *f*, which is to be shaped into scroll form F', as shown in Figs. 3, 4, and 8.

It is not essential that the scroll former and receiver C should be made wholly in the block A, with a flat cover D fitting over such scroll former and receiver, as, if so desired, the scroll former and receiver may be made partially in the block A and cover D, as shown in Fig. 6, without departing from the essence of my invention.

The operation is as follows: I take a wood rod, either in the green state or previously steamed or moistened, and force its end through the guide-tube B into the scroll-former C, thereby causing the rod to be shaped into scroll form, as shown in Fig. 3, and it is held in such shaped condition within the shaping-block until it is dry and set, when it may readily be removed by releasing and swinging open the cover D of the scroll-former block A.

If so desired, I may secure to the interior of the scroll former or receiver C a helical guide-rib G, adapted to serve as a guide during the formation of the scroll on the wooden bar while forced into such scroll former and receiver during the process of forming the scroll. Such helical guide-rib may be more or less thick, according to the space that may be desired between the convolutions of the scroll.

What I wish to secure by Letters Patent, and claim, is—

1. The herein-described device for making scrolls on bars of wood, consisting of a shaping-block, having a guide-tube and having connected thereto a scroll-former into which the wooden bar is forced, and caused to be formed into a scroll form, substantially as and for the purpose set forth.

2. The herein-described device for making scrolls on bars of wood, consisting of a shaping-block having a guide-tube, and having connected thereto a scroll-former, provided with a helical guide-rib, serving as a guide for the formation of the scroll of the wood bar when forced into said scroll-former substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
WILLIAM B. C. NOYES.

No. 655,889.

Patented Aug. 14, 1900.

A. H. ORDWAY.

SHAPING WOOD.

(Application filed Mar. 18, 1900.)

(No Model.)

2 Sheets—Sheet ..

Fig. 5.

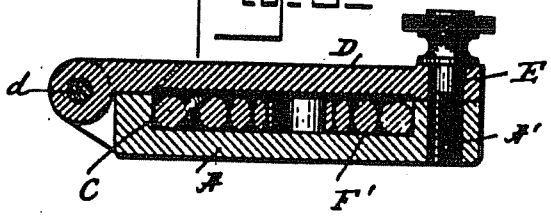


Fig. 6.

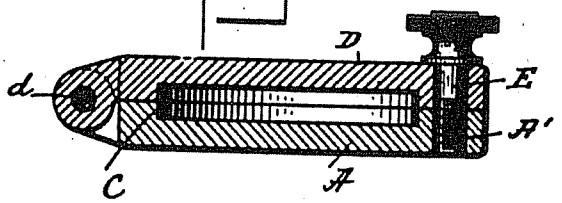
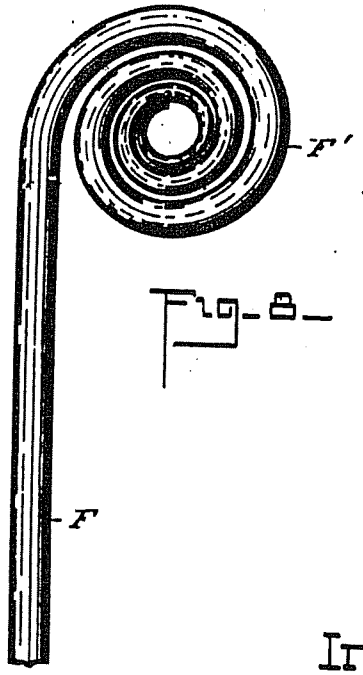


Fig. 7.

Fig. 8.



Witnesses

David Drummer

Charles F. Logan

Inventor

Albert H. Ordway

by Albert Goodrich his atty

(No Model.)

(Application filed MAY 15, 1900.)

2 Sheets—Sheet 1.

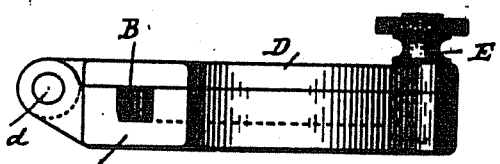


Fig-1-

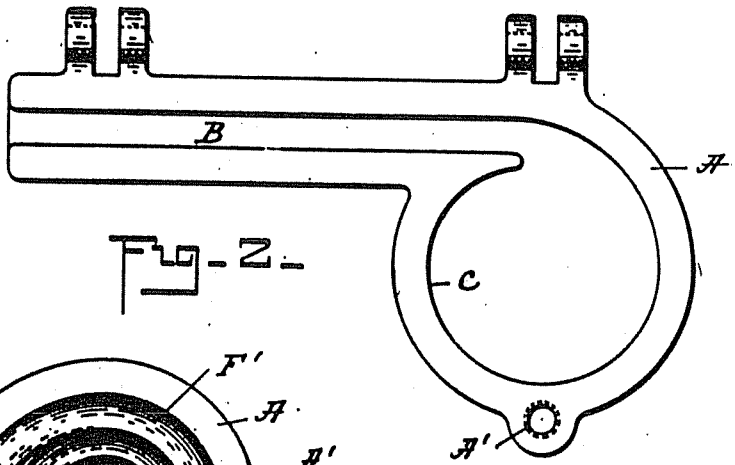


Fig-2-

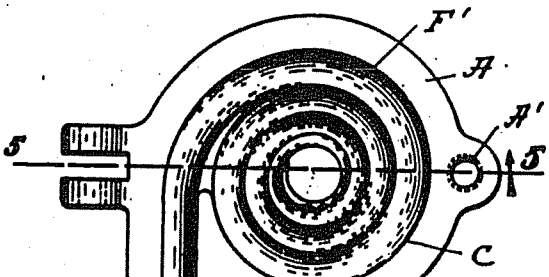


Fig-3-

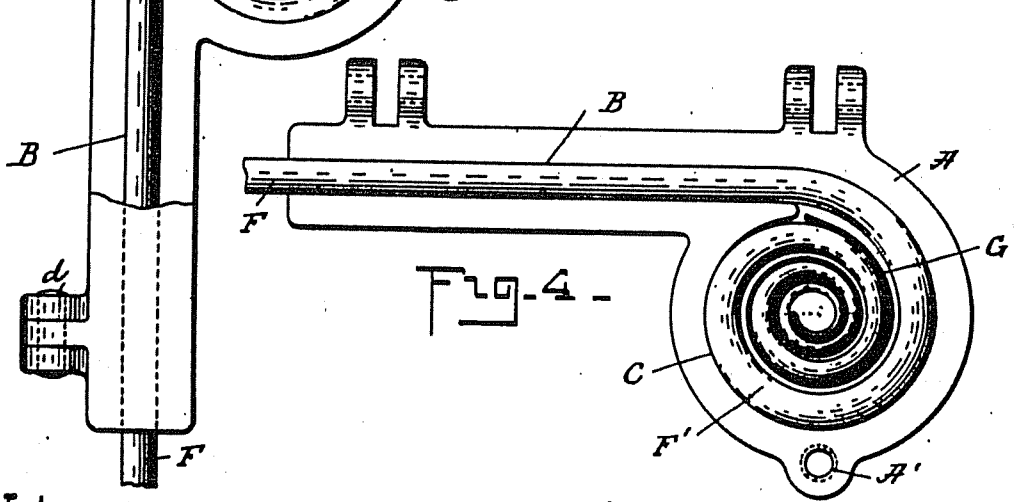


Fig-4-

Witnesses

Louis Dunker

Charles F. Logan

Inventor

Albert H. Ordway

by Albert Ludwig his atty

UNITED STATES PATENT OFFICE.

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

PROCESS OF TWISTING WOODEN RODS INTO ROPE FORM.

SPECIFICATION forming part of Letters Patent No. 650,269, dated May 22, 1900.

Application filed March 13, 1900. Serial No. 8,520. (No specimens.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, residing at 15 Union avenue, South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Processes for Twisting Wooden Rods into Rope Form, of which the following is a specification.

This invention relates to an improved process for twisting wood or ratan rods or strands into rope form; and it consists in forcing two or more such wood or ratan rods while in a green, steamed, or moist condition into a twister-block having a longitudinal twister-bore corresponding in shape to the form to be given to the twisted rope. The strands or bars thus twisted into rope form by being forced into the twister-block are allowed to remain in the latter until they are dry and set, when they will be removed from said twister-block. Instead of retaining such twisted strands in the original twister-block until dry they may to equal advantage be forced through such twister-block into a similar auxiliary spirally-bored block, which may be removed from the twister-block and put away with the twisted rope contained therein until the rope is dry and set, after which the now-finished rope may be removed from such auxiliary block, thereby facilitating the working of the process.

In carrying out my improved process I prefer to make use of a device as represented in the accompanying drawings, in which—

Figure 1 represents a cross-section of the twister-block. Fig. 2 represents a horizontal section on the line 2 2, shown in Fig. 1. Fig. 3 represents a vertical section on the line 3 3 in Fig. 1, showing the wood or ratan strands partially forced into the twister-block; and Fig. 4 represents a side elevation of the finished wood or ratan rope.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

A in the drawings represents the twister-block, which may be secured to a base or table B or other suitable support. Through the block A is made a longitudinal twisted bore or perforation A', into which the green, moist, or steamed wood or ratan rods or strands C C C C, two or more, are forced during the twisting operation, and while being so forced into the said twisted bore the strands or bars are caused to be twisted into rope form, as shown in Fig. 4. I do not wish to confine myself to any particular mechanism, machine, or tool for forcing said strands into or through the said twister-block, as this may be accomplished by any well-known mechanism without departing from the essence of my invention.

I am aware that a single wood bar has been twisted by forcing it through a twister-die having a longitudinal spiral perforation, and I am also aware that wood or ratan rods have been twisted into rope form by spinning the strands similar to the manner of spinning hemp or fibrous or textile ropes, and I wish to state that I do not claim such devices or processes as my present invention; but

What I wish to secure by Letters Patent and claim is—

The herein-described process of twisting a series of wood or ratan bars or strands into rope form, consisting in forcing such bars or strands, while green, steamed or moist, into a twister-block having a longitudinal twister bore or perforation and allowing such twisted rope to set and dry, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
LAURITZ N. MÖLLER.

No. 650,269. Patented May 22, 1900.

A. H. ORDWAY.

PROCESS OF TWISTING WOODEN RODS INTO ROPE FORM.

(Application filed Mar. 18, 1900.)

(No Model.)

Fig. 1.

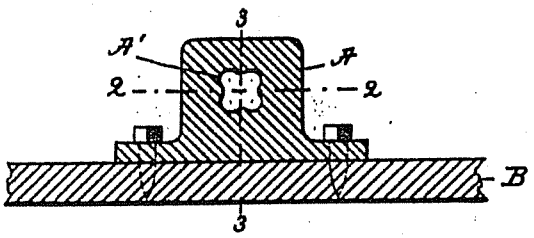


Fig. 2.

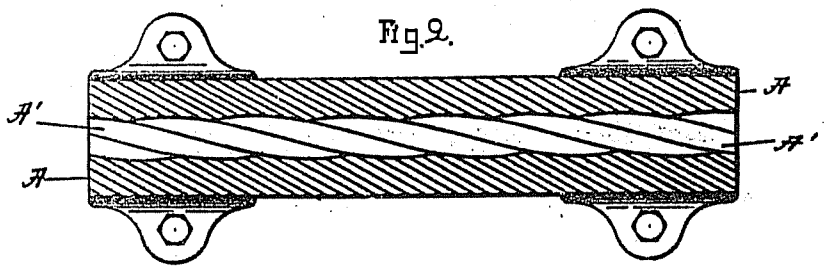


Fig. 3.

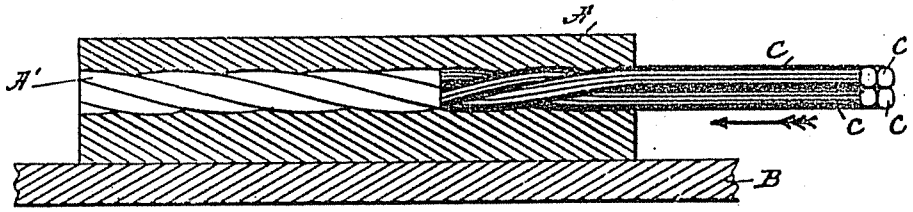


Fig. 4.

Witnesses,
Laurits N. Möller
Charles A. Harris

Inventor.
Albert H. Ordway
by Allan Ludlow
his atty.

UNITED STATES PATENT OFFICE.

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

WOOD OR RATAN TWISTING OR SHAPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 637,652, dated November 21, 1899.

Application filed June 26, 1899. Serial No. 721,861. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, residing at South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Wood or Ratan Twisting or Shaping Devices, of which the following is a specification.

This invention relates to an improved wood or ratan twisting or shaping device; and it has for its object to spirally twist or shape wood or ratan strands or rods adapted for use in the art of making furniture, for interior decorative purposes, &c., as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the spirally-grooved metal rod used for twisting or shaping the wood or ratan strands or rods. Fig. 2 represents a cross-section on the line 2 2, shown in Fig. 1. Fig. 3 represents a side elevation of said spirally-grooved metal rod, showing the ratan or wooden rod or strand placed in the spiral groove thereon during the twisting or shaping operation. Fig. 4 represents a cross-section on the line 4 4, shown in Fig. 3. Fig. 5 represents a side view of one of the twisted or shaped wood or ratan rods or strands after being shaped or twisted, and Fig. 6 represents a side elevation of a wood or ratan rope or coil comprised of two or more of the twisted or shaped wood or ratan rods or strands.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

For the purpose of twisting or shaping ratan or wooden rods or strands I make use of a cylindrical metal spindle A, of any suitable length and thickness. The said metal spindle has on its periphery a spiral groove B, adapted to receive the wood or ratan rod or strand C that is to be shaped or twisted.

In carrying out the operation of shaping or twisting the wood or ratan rods or strands I take them in a pliable form, either green or steamed, and place each of such in the spiral groove B on the metal spindle A and confine its ends in position on said spindle A, preferably by means of rings or clamps D D, as shown in Figs. 1 and 3, after which the wood or ratan rod or strand C is allowed to remain in position on said spirally-grooved spindle until dry, when it is removed and caused to retain the shaped or twisted shape, as shown in Fig. 5. As shown most clearly in Figs. 1 to 4 of the drawings, the spiral groove B is U-shaped in cross-section and is of such depth that when the ratan rod or strand C is arranged in the groove said rod or strand wholly lies within the groove in such manner that it will not project beyond the periphery of the spindle A. By thus forming the groove the rings D may be moved longitudinally on the spindle when the ratan is in place in the groove to clamp and unclamp the ratan rod or strand. Such twisted or shaped rods or strands may be used singly in the art of making furniture, for interior decorations, or for other purposes to which they may be applicable. Two or more of such twisted or shaped rods or strands may, if so desired, be united or connected together in the form of a rope or spirally-wound rod C′, as shown in Fig. 6, and this is accomplished simply by twisting or laying the previously-shaped strands together in a spiral form, in which position they will be retained and, as it were, locked together by reason of the original twisting or shaping operation given to the individual rods or strands, as above set forth.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. The herein-described device for shaping wood or ratan rods, consisting of a cylindrical spindle having a spirally-grooved periphery and rings arranged and longitudinally movable on the opposite ends of said spindle for engaging the ends of the wood or ratan rod and holding it in place in the groove, substantially as described.

2. The herein-described device for shaping wood or ratan rods, consisting of an elongated cylindrical spindle having a spirally-grooved periphery, said spiral groove being U-shaped in cross-section and of such relative depth and width as to wholly receive a ratan rod fitted therein, and the convolutions of said groove being long drawn out or widely separated from one another, and rings arranged and longitudinally movable on the opposite ends of said spindle, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
MARGARET E. DALEY.

No. 637,652. Patented Nov. 21, 1899.

A. H. ORDWAY.

WOOD OR RATAN TWISTING OR SHAPING DEVICE.

(Application filed June 26, 1899.)

(No Model.)

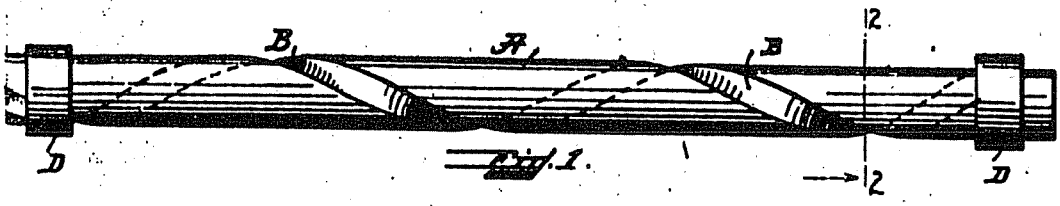


Fig. 1.

Fig. 2.

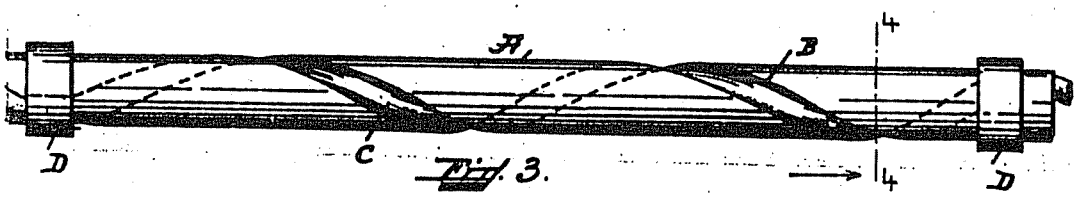


Fig. 3.

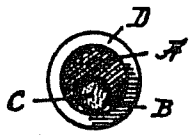


Fig. 4.

Fig. 5.

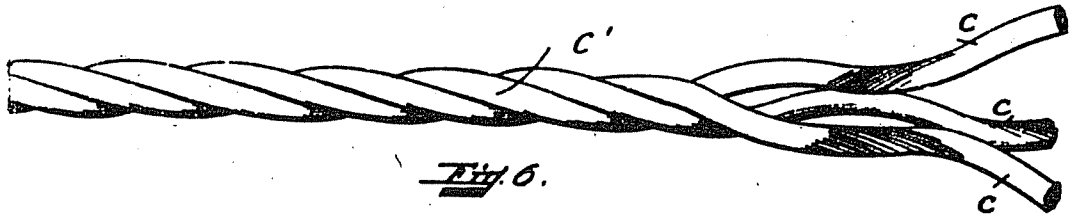


Fig. 6.

Witnesses:
Henry B. Fry
Samuel J. Toddock

Inventor:
Albert H. Ordway
by Albert Hendricks
his atty.

UNITED STATES PATENT OFFICE.

OSCAR H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS, ASSIGNOR TO ALBERT H. ORDWAY, OF SAME PLACE.

MACHINE FOR TWISTING WOOD.

SPECIFICATION forming part of Letters Patent No. 595,199, dated December 7, 1897.

Application filed March 29, 1897. Serial No. 629,673. (No model.)

To all whom it may concern:

Be it known that I, OSCAR H. ORDWAY, a citizen of the United States, and a resident of South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Shaping Wood, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in machines for imparting a torsional twist to green or moist wooden bars or rods having an angular shape in cross-section, and has for its objects to provide means for this purpose comprising a twister-die, into which the bars or rods are forced and allowed to remain until they permanently retain their twisted form, said die having a longitudinal bore of angular shape in cross-section, the walls of which are twisted torsionally along their length, and in means for guiding and forcing the said bars or rods to be shaped into the twister-die, said guiding means being arranged to hold one end of the said bar or rod against rotation while being forced into the said twister-die.

Figure 1 represents a top plan view of my improved wood-twisting machine. Fig. 2 represents a central longitudinal section on the line 2 2 shown in Fig. 1. Fig. 3 represents an enlarged cross-section on the line 3 3 shown in Fig. 1. Fig. 4 represents an enlarged cross-section on the line 4 4 shown in Fig. 1. Fig. 5 represents an enlarged top plan view of the guide-block, showing its top or cover removed. Fig. 6 represents a horizontal section of the twisting-die, shown as being taken on the line 6 6 in Fig. 4. Fig. 7 represents a perspective view of a wooden rod before being twisted by my improved machine and method, and Fig. 8 represents a side elevation of said rod after being twisted.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents a suitable table, bench, or support, on which is secured the driver or plunger guide-block B, which receives the wood C to be twisted, as well as the reciprocating driver or plunger D, as shown in Figs. 1 and 2. The driver or plunger D may be reciprocated by any suitable means, and I have in the drawings, Figs. 1 and 2, shown for this purpose said driver or plunger as provided with a rack *d*, the teeth of which mesh in the teeth of a pinion E, secured to a shaft *e*, journaled in bearings attached to the table A and provided with a crank E', by means of which the said pinion E may be rotated to the right and left during the operation of the machine. I wish, however, to state that I do not desire to confine myself to any particular means or mechanism for reciprocating said driver or plunger, as this may be done in any well-known manner without departing from the essence of my invention.

The guide-block B is provided with a longitudinal perforation B', which in cross-section corresponds with the cross-section of the wooden rod C that is to be twisted. Thus if the latter is square or polygonal in section the longitudinal guide-perforation B' is of a correspondingly-shaped section, so as to cause the wooden rod or blank to fit closely within such guide-sleeve during the process of twisting it.

The section of the driver or plunger D is likewise made corresponding to that of the wooden rod C to be twisted and to the shape of the said guide-sleeve B'.

In practice I prefer to provide the guide-block B with a preferable hinged cover B'', which may be swung open or removed altogether from the block B previous to placing within its guide groove or perforation B' the wooden rod or bar that is to be twisted, and after such bar has been inserted therein the cover B'' is closed and fastened down by means of a hook *b''* or any other well-known locking or fastening device.

In practice I prefer to make within the guide-block B a steam-jacket B^3, which may be supplied with steam under pressure from a pipe *b*, leading from a boiler or other source of steam-pressure.

b' b' are steam ports or passages leading from the jacket or steam-chamber B^3 to the guide groove or perforation B', in which the wooden bar C is being guided during the twisting operation, and by such arrangement

the wooden blank or bar is steamed and rendered more plastic and yielding during the twisting operation.

In alinement with the longitudinal perforation B′ of the guide-block B is arranged the twister-die F, which is detachably secured in a suitable manner to the support or table A, as shown. Said twister-die is provided with a longitudinal twisted bore or perforation *f*, into which the green or steamed rod C is pushed by the driver or plunger D as it is being forced from the guide groove or perforation B′ in the guide-block B, and it will thus be seen that the said wooden rod, bar, or blank is caused to be torsionally twisted to correspond with the internal torsional form of the twisted perforation *f* in the twister-die F.

C′ in Fig. 8 represents the wooden bar after being twisted in the manner above described. After said bar has been twisted in the manner above mentioned it is allowed to remain within the said twister-die until it is thoroughly dry, when it is removed from within said die. During such drying process I prefer to remove the said twister-die and the twisted rod remaining within it from the table A and replace it by another similar die for twisting another rod, and so on.

To remove the twisted rod from within the twister-die F after said rod is dried and hardened, it is only necessary to push it out lengthwise therefrom either by means of the plunger D and a wooden rod placed in the guide-block B, by which the finished rod is being forced out of the die F during the twisting operation of the next rod, and so on; or, if so desired, the die F may be made in parts and divided longitudinally, as represented by dotted lines *f′ f′* in Fig. 4, so as to enable such parts to be detached whenever it is desired to remove the twisted and dried wooden bar from within said twister-die.

In shaping the wooden bars or rods I proceed as follows: I take a wooden bar of any desired section, either green or steamed, and place it in the longitudinal groove B′ of the guide-block B and close the cover on said guide-block, after which the said wooden rod is forced onward through said guide-block by means of the plunger D, causing the wooden bar to be forced into the torsionally-twisted perforation *f* in the twister-die F, by which the rod is made to assume the torsional form, as shown in Fig. 8, corresponding to the said torsional perforation *f* in the twister-die.

In the drawings I have shown said twister-die as being straight for making straight rods; but said twister-die may be made segmental or curved in any suitable manner if it is desired to produce twisted as well as curved rods.

I wish to say that although a guide-block is shown in the drawings and a reciprocating plunger or driver actuated by a rack and pinion such devices are not absolutely necessary, as the wooden rod may be forced through the twister-die in any other suitable manner without departing from the spirit of my invention.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. A machine for imparting a torsional twist to wooden bars or rods having an angular shape in cross-section, consisting of a twister-die having a longitudinal bore of angular shape in cross-section, the walls of which are twisted torsionally along their length, and means for guiding and forcing the bars or rods to be shaped into said twister-die, said guiding means being arranged to hold one end of the said rod or bar against rotation while being forced into the said twister-die.

2. A machine for imparting a torsional twist to wooden bars or rods having a polygonal shape in cross-section, said machine consisting of a twister-die having a longitudinal bore of uniform diameter throughout its length and of polygonal shape in cross-section, the inner walls of said bore being twisted torsionally along their length, and means for guiding and forcing the rods or bars to be shaped into said twister-die, said guiding means being arranged to hold one end of the bar or rod against rotation while being forced into the twister-die.

3. A machine for imparting a torsional twist to wooden bars or rods having an angular shape in cross-section, consisting of a longitudinally-grooved guide-block, said groove being of angular shape in cross-section and having a hinged cover by which access may be had to said groove, said guide-block being adapted to hold the rods or bars against rotation, a twister-die having a longitudinal bore of angular shape in cross-section, the inner walls of said bore being twisted torsionally along their length, and a driver or plunger for forcing the bars or rods to be shaped through the said guide-block and into the twister-die.

4. The herein-described machine for shaping wooden rods or bars, consisting of a twister-die having a longitudinally-twisted bore through which the green or steamed wooden bar is forced and in which it is allowed to remain until it retains its twisted form and means for holding one end of the bar or rod against rotation while it is being forced into the twister-die, substantially as and for the purpose set forth.

5. The herein-described machine for shaping wooden rods or bars, consisting in combination a longitudinally grooved or perforated guide-block, said groove being angular in cross-section, and adapted to hold one end of the bar or rod against rotation, a twister-die having a longitudinal twisted bore or perforation in alinement with the guide-groove in the guide-block, and a reciprocating driver or plunger for forcing the green or steamed bar through the guide-block and twisted bore

or perforation in the twister-die, substantially as and for the purpose set forth.

6. The herein-described machine for shaping wooden rods or bars consisting in combination a guide-block having a longitudinal perforation for receiving the green or steamed wooden bar, a steam-jacket in said guide-block for forcing steam in contact with the wooden bar or rod, a twister-die having a twisted bore or perforation in alinement with the groove in the guide-block and a reciprocating driver or plunger for forcing the wooden bar through the guide-groove and through the twisted bore or perforation in the twister-die, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 26th day of March, A. D. 1897.

OSCAR H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
LAURITZ N. MÖLLER.

(No Model.) 3 Sheets—Sh...

O. H. ORDWAY.

MACHINE FOR TWISTING WOOD.

No. 595,199. Patented Dec. 7, 1897

Fig. 5.

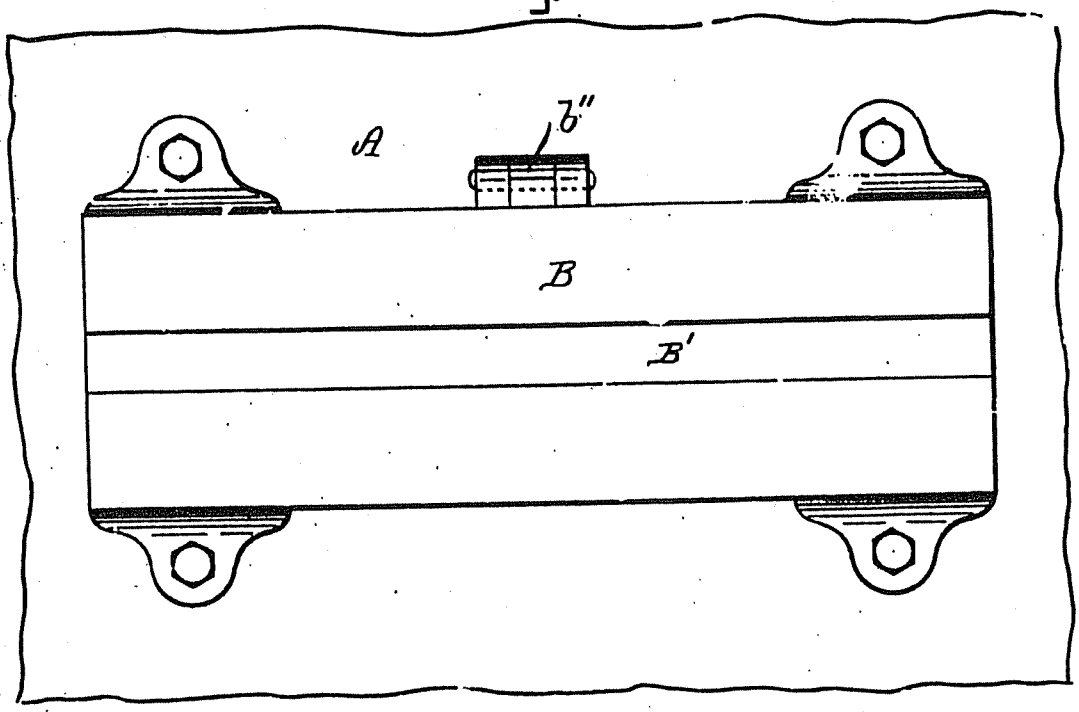
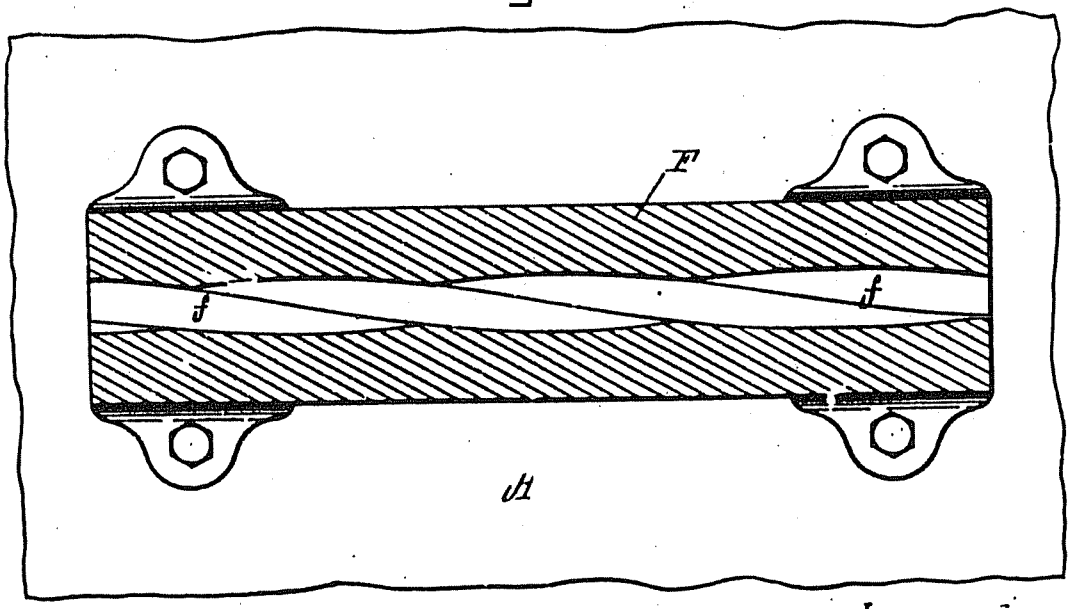


Fig. 6.



Witnesses.

Laurentz N. Höller.
Charles A. Harris.

Inventor.

Oscar H. Ordway
by Albert Andrén
his att'y.

(No Model.) 3 Sheets—Sheet 2.

O. H. ORDWAY.

MACHINE FOR TWISTING WOOD.

No. 595,199. Patented Dec. 7, 1897.

Fig. 3.

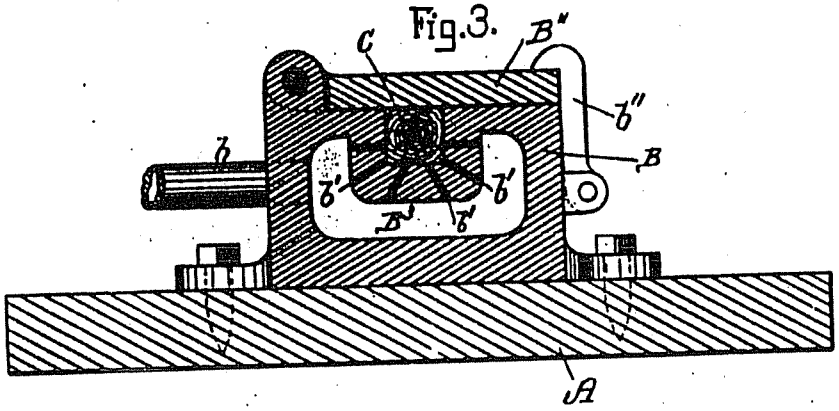


Fig. 4.

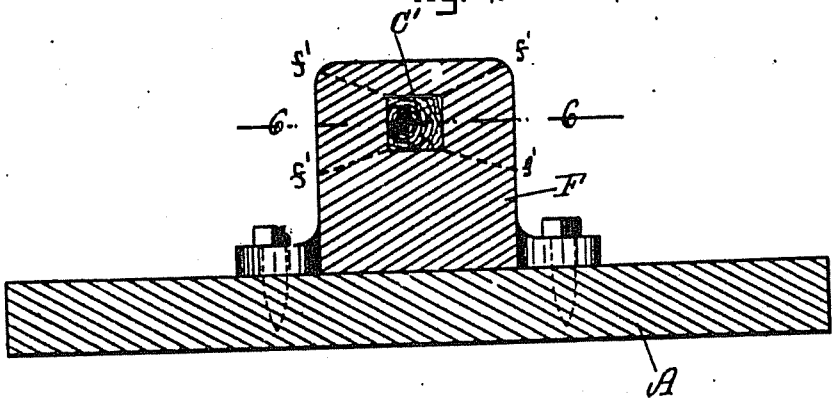


Fig. 7.

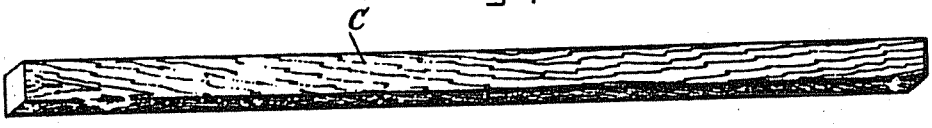
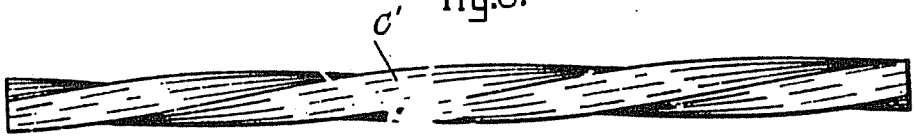


Fig. 8.



Witnesses.

Laurits N. Boller.

Charles A. Harris.

Inventor.

Oscar H. Ordway

by Allan Hendrick

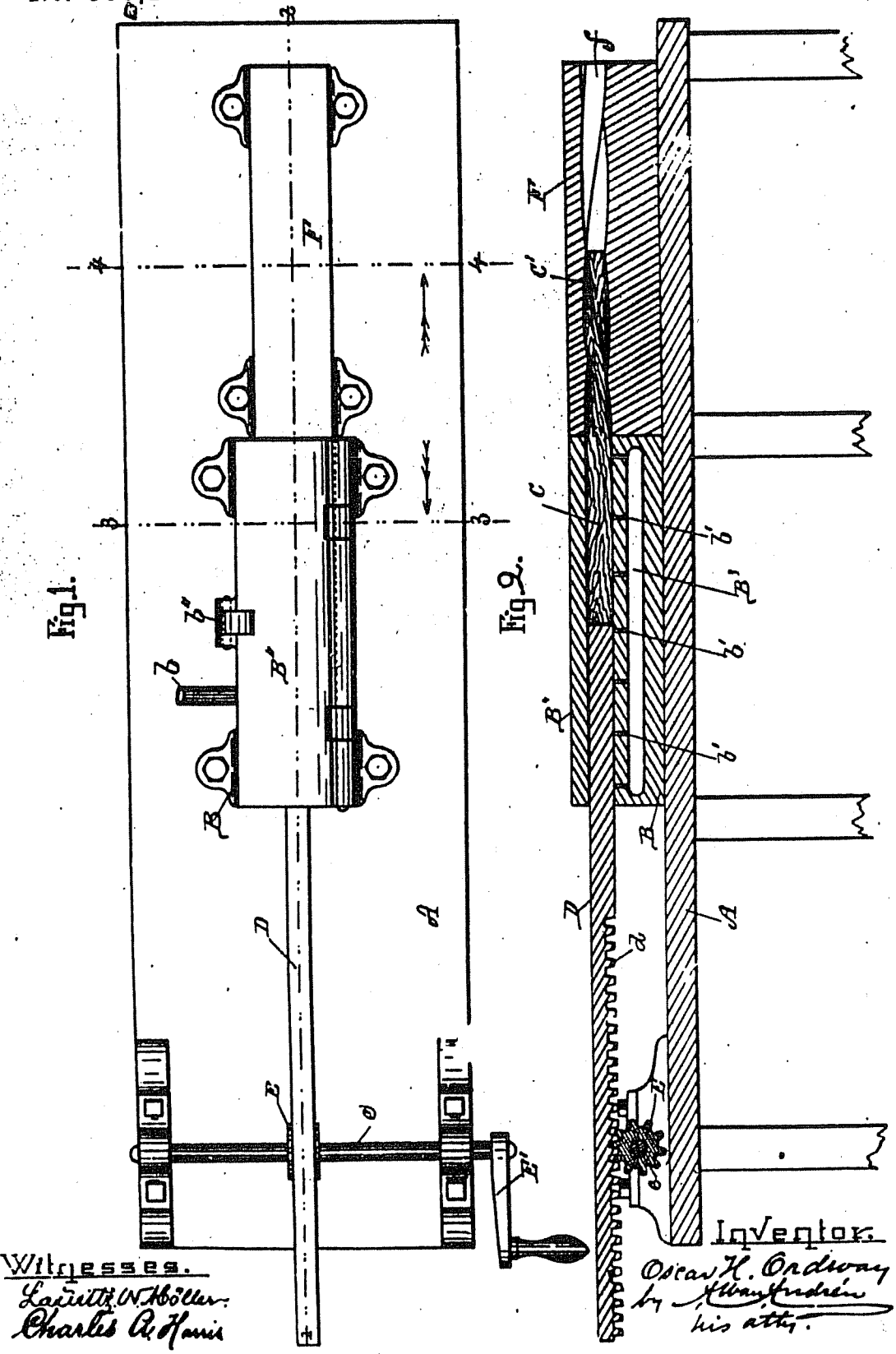
his atty.

(No Model.) 3 Sheets—Sheet 1.

O. H. ORDWAY.

MACHINE FOR TWISTING WOOD.

No. 595,199. Patented Dec. 7, 1897.



Witnesses.
Lauritz N. Möller
Charles A. Harris

Inventor.
Oscar H. Ordway
by Albert Andrews
his atty.

595199

UNITED STATES PATENT OFFICE.

OSCAR H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

WOOD OR RATTAN TWISTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 556,203, dated March 10, 1896.

Application filed June 25, 1895. Serial No. 553,942. (No model.)

To all whom it may concern:

Be it known that I, OSCAR H. ORDWAY, a citizen of the United States, and a resident of South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Wood or Rattan Twisting Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to an improved machine for twisting wood and rattan strips or rods, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the improved machine, partly shown in section. Fig. 2 represents a top plan view of the said machine. Fig. 3 represents a detail central longitudinal section of the twisting mechanism which forms a part of the machine. Fig. 4 represents an end view seen from X in Fig. 3. Fig. 5 represents a top plan view of the longitudinally-movable vise and drawing device. Fig. 6 represents a vertical section on the line 6 6 shown in Fig. 5. Fig. 7 represents an end elevation of Fig. 6. Fig. 8 represents an end view of the rotary twister-die, and Fig. 9 represents a side elevation of the product of the machine.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents a base-plate or table-top supported on legs at a suitable and convenient distance above the floor in the room or building in which the machine is located. To said plate or table A are secured the bearings B C, in which are journaled respectively the tube-carrying disks B′ C′, to which is firmly secured cone-pulley D, as shown. The said pulley and its disks are set in a rotary motion preferably by means of belt-power applied to said pulley in any suitable manner.

F is an endless-belt carrier, as shown in Figs. 1 and 3, and it is carried on pulleys G H, the former of which is set in a positive rotary motion by intermediate connecting mechanism from the pulley D, as shown in the drawings, Figs. 1, 2 and 3. Any such intermediate connecting mechanism may be employed, and I have in the said Figs. 1, 2 and 3 shown for this purpose a pinion I, attached to one end of the pulley D, which pinion intermeshes with a gear I′ secured to a shaft i', to which is attached a bevel-pinion i'' that intermeshes with a bevel-gear I″, secured to a shaft I^3, to which is also secured a pinion i^3 in gear with the toothed wheel I^5 by means of the intermediate gear I^4. The gear I^5 is secured to the shaft y of the pulley G, and it will thus be seen that a desired positive rotary motion is imparted to the pulley G from the pulley D, by which arrangement the endless belt F is caused to travel at a proper speed in direction of arrows shown on the pulleys G H in Figs. 1 and 3. The said intermediate connecting mechanism may, however, be varied without departing from the essence of my invention.

K K K are guide-tubes for the wood or rattan strips or reeds L L L, as shown. Said tubes pass through the pulley D and through perforations in the rotary disks B′ C′, and are secured to the latter preferably by means of set-screws B″ C″, as shown in Figs. 3 and 4.

The pulley D and the longitudinal perforations or guide-tubes K therein constitute a rotary twister-head for the material to be twisted.

The tubes K K K may be of any suitable length, according to the length of rattan or wooden strips or reed that are to be twisted, and their rear ends secured to a perforated disk M′ journaled in a bearing M, as shown in Figs. 1 and 2. The said bearing M and its perforated disk M′ are constructed in a like manner to that described relative to the bearings B C and their respective rotary perforated disks B′ C′.

To the forward ends of the tubes K K K is secured a clutch or hub N, outside of which is secured the perforated twister-die N′ having perforations *n n n*, each of which is about large enough to allow the passage through it of one of the strips or reeds L, as shown in Figs. 1, 2, 3, and 8.

A short distance in front of the rotary twister-die N′ is located a tubular trumpet-mouthed reed-guide O, preferably secured to a carrier O′ mounted on wheels O″ O″ and adapted to be normally held stationary during the twisting operation, and I have for such purpose shown a hook O^3 on said carrier

O', adapted to be interlocked with a stationary hooked projection B³, as shown in Figs. 1 and 3.

The carrier O' is adapted to slide or roll, when released, on tracks P P. (Shown in Figs. 1, 2, and 3.) On said tracks P P is movable the drawing-carriage R, which is provided with a clamping-vise R' of any suitable construction, between the jaws of which the ends of the wood or rattan strands or reeds L L L are firmly secured, as shown in Figs. 1, 2, 5, 6, and 7. Said carriage is preferably mounted on wheels R'' R'', adapted to roll on the tracks or rails P P, as shown.

During the drawing and twisting operation the carriage R is secured to the endless belt F in any suitable manner, and I have for this purpose shown a bail or ⊔-shaped frame S, secured to said carriage R, and an adjustable clamping-screw S' screwed through the said carriage and provided with a clamping-head S'' in its lower end, between which and the bail S the belt F is clamped by the turning of a crank or hand wheel S³ whenever it is desired to secure said carriage R to the traveling belt F, as fully shown in detail in Figs. 5, 6, and 7.

L' in Figs. 1, 2, 3 and 9 represents the product of the machine.

The operation of this my improved twisting-machine is as follows: Before starting the machine the guide-carrier O' is released and moved a proper distance toward the left, and the previously damp or moistened strands L to be twisted together are passed into the tubes K through the perforations *n* in the die-plate N' nearly their whole length, after which the ends of the strands are passed through the guide-tube O, and the carrier O' secured firmly in position, as shown in Fig. 3. The released carriage R is then moved up to the guide-carrier O', and the ends of the strands L are clamped in the vise R', as shown. The carriage R is then secured to the belt F by means of the clamping-screw S', as shown in Fig. 6, after which the pulley is set in motion, causing the tubes K and their strands located therein to be rotated around a common axis at the same time as the carriage R is caused to move with the belt F in a direction away from the guide-carrier O', thus causing the strands to be twisted together, as shown in Fig. 9. When the whole length of the strands has thus been twisted, the machine is stopped either by hand or by any well-known belt-shipper device, the vise R' is opened and the twisted product L' removed, after which the carriage R is detached from the belt F, and the operation repeated with another set of strands of wood, reed or rattan, and so on.

The article thus quickly and cheaply produced is very useful in the art of making rattan or reed furniture as well as for any other similar purposes.

Two or more strands may be twisted together in my improved machine, as may be desired.

Having thus fully described the nature, construction, and operation of my improved machine, what I wish to secure by Letters Patent and claim is—

1. In a wood or rattan twisting machine, in combination a rotary twister-head having a series of longitudinal perforations or guide-pipes therein, a stationary guide-tube and a longitudinally-movable drawing and clamping device, and an endless-belt-feeding device adapted to be connected to said drawing and clamping device, substantially as and for the purpose set forth.

2. In a wood or rattan twisting device in combination a rotary twister-head having a series of longitudinal perforations or guide-pipes therein, a perforated twister-die secured to said pipes, a guide-tube normally held stationary relative to said twister-die and adapted to be longitudinally adjustable in relation to it, an endless carrying-belt and intermediate connecting mechanism between it and the rotary twister-head and a longitudinally-movable drawing and clamping device adapted to be secured to said endless carrying-belt, substantially as and for the purpose set forth.

3. In a wood or rattan twisting machine, the combination with a rotary twister-head, and a rotary twister-die, of a normally-stationary guide adjustable to and from the twister-die, a drawing device adapted to clamp the twisted material, and mechanism for actuating the said twister-head and drawing device substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 21st day of June, A. D. 1895.

OSCAR H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
ALBERT H. ORDWAY.

(No Model.) 2 Sheets—Sheet 1.

O. H. ORDWAY.

WOOD OR RATTAN TWISTING MACHINE.

No. 556,203. Patented Mar. 10 1896.

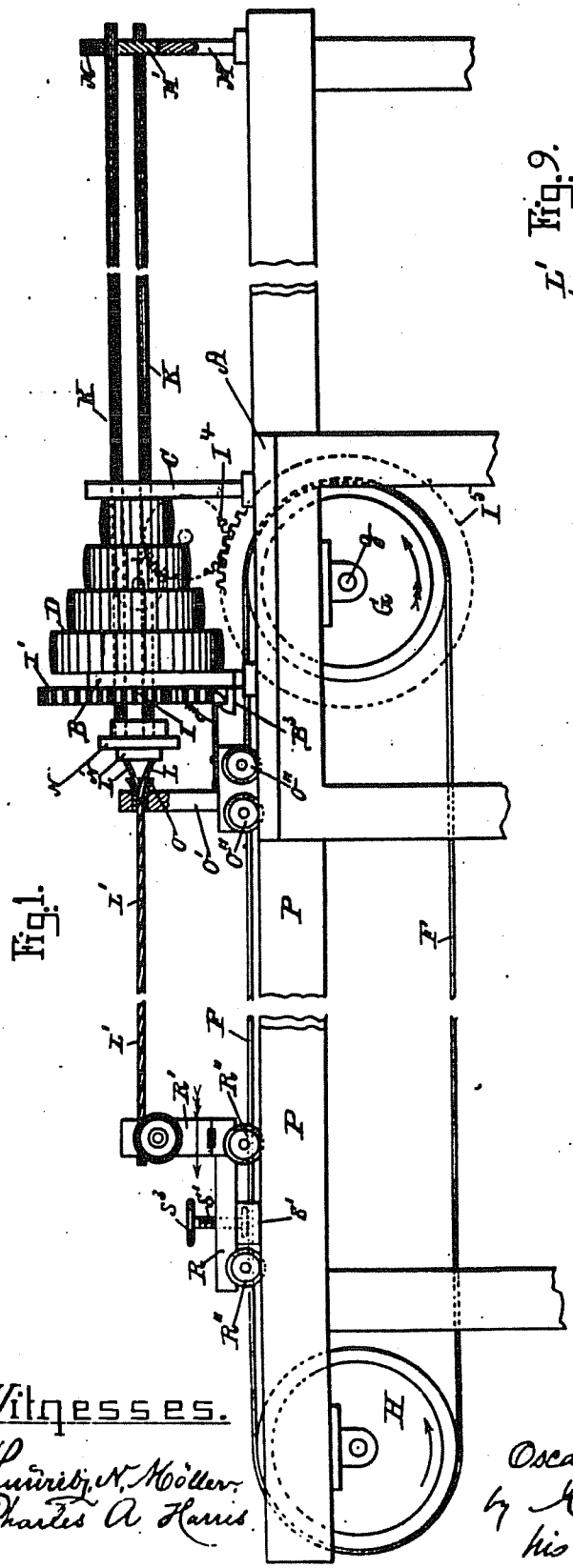


Fig. 1.

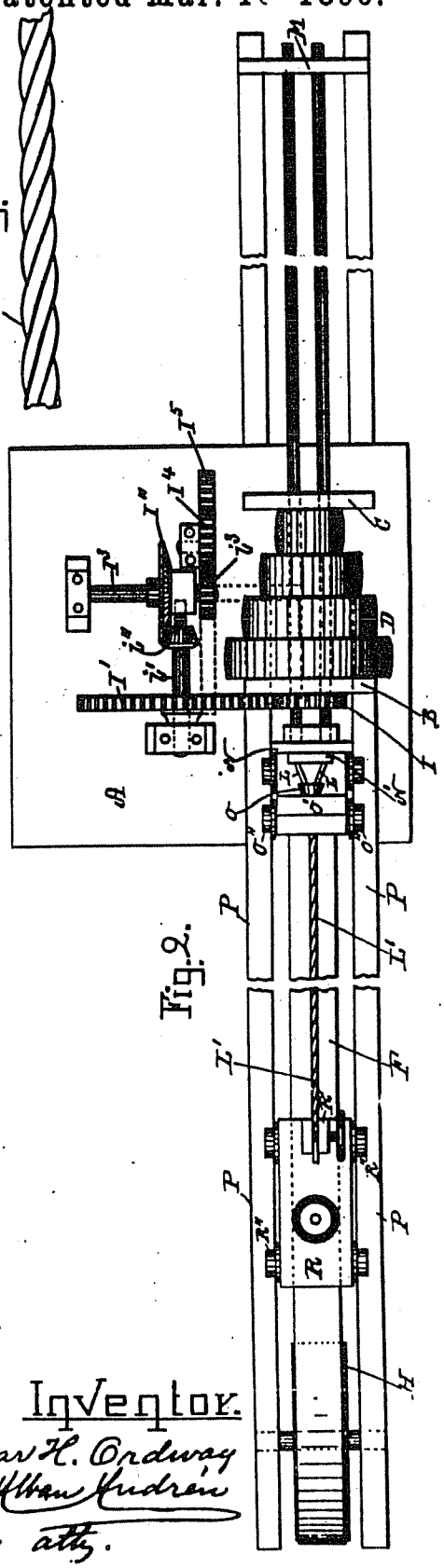


Fig. 2.

Fig. 9.

Witnesses.

Lucius N. Miller.
Charles A. Harris.

Inventor.

Oscar H. Ordway
by Albert Andrews
his atty.

(No Model.) 2 Sheets—Sheet 2.

O. H. ORDWAY.

WOOD OR RATTAN TWISTING MACHINE.

No. 556,203. Patented Mar. 10, 1896.

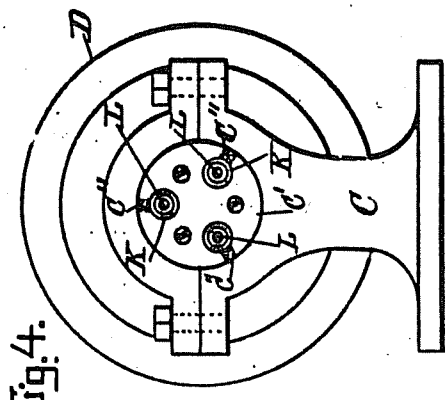


Fig. 4.

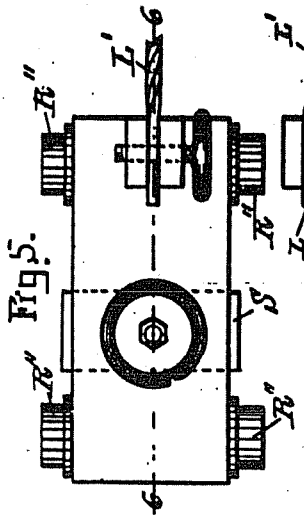


Fig. 5.

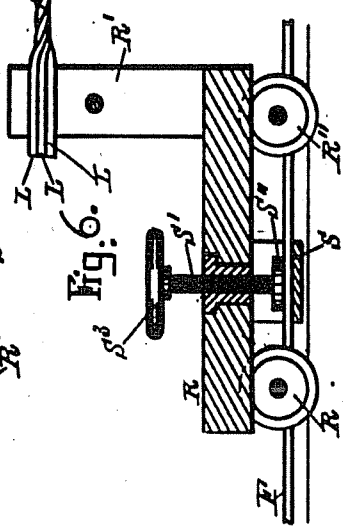


Fig. 6.

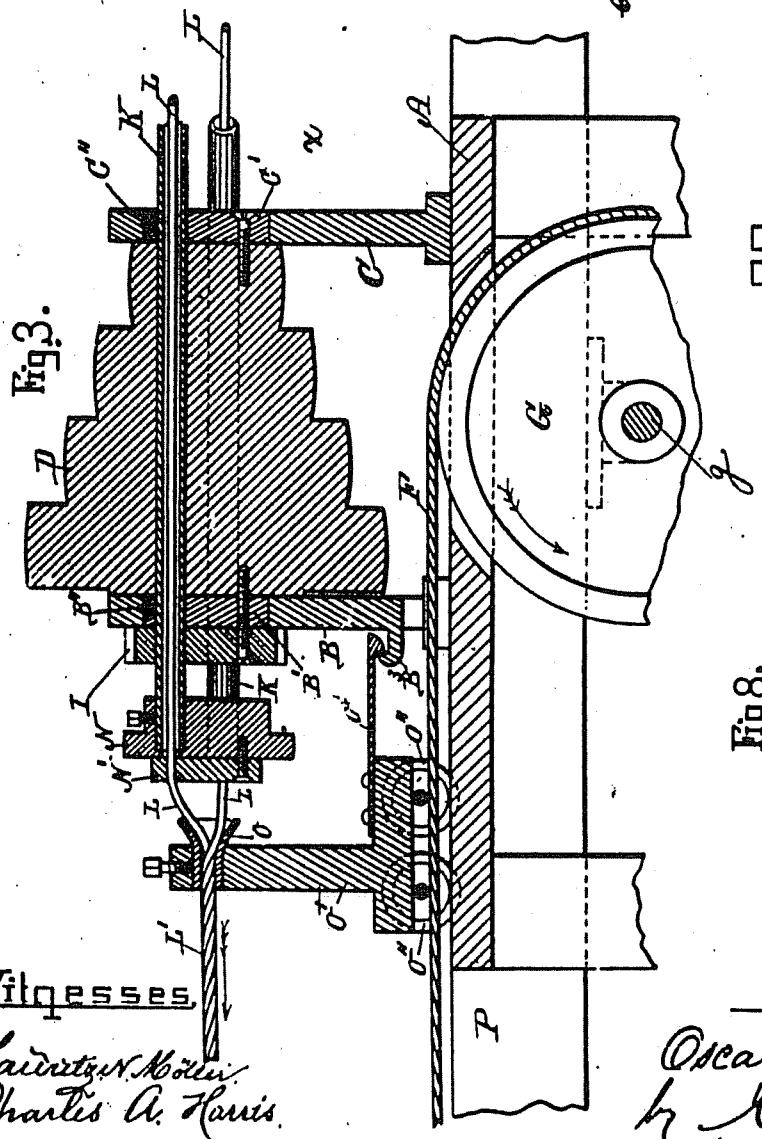


Fig. 3.

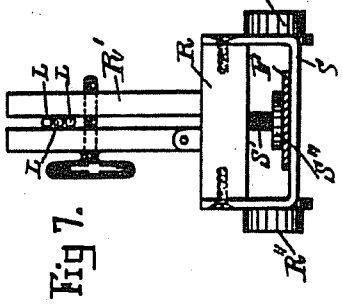


Fig. 7.

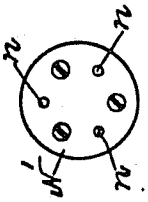


Fig. 8.

Witnesses,
Laurence Mosher
Charles A. Harris.

Inventor.
Oscar H. Ordway.
by Albert Andrén.
his atty.

UNITED STATES PATENT OFFICE.

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

SHAPING WOOD.

SPECIFICATION forming part of Letters Patent No. 538,928, dated May 7, 1895.

Application filed February 9, 1894. Serial No. 499,631. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, and a resident of South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Shaping Wood, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in shaping wood and it consists in spirally twisting wooden rods or bars while in a green or steamed condition and allowing them to dry while being held in such twisted position under longitudinal tension so as to cause them to permanently retain their twisted form after drying. The articles so produced are adapted for a variety of purposes among which may be mentioned various parts of furniture, banister rods, pillars, &c. Heretofore rods of this description have been turned in specially constructed lathes or machinery which rendered the articles costly besides causing a waste of material by the turning or cutting away of a portion of the stock. Such spirally turned rods are of a brittle nature on account of the fibers of the wood not coinciding with the spiral outlines of the curvature. This is entirely obviated with my invention in which the grain or wood fibres of the twisted rod are arranged spirally relative to the axis of the latter thus materially increasing the strength of such spirally twisted articles.

The invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a top plan view of a suitable apparatus used for spirally twisting the wooden rods. Fig. 2 represents a central longitudinal section on the line 2 2 shown in Fig. 1. Fig. 3 represents an end view seen from X in Fig. 2. Fig. 4 represents a perspective view of a wooden rod before being spirally twisted, and Fig. 5 represents a similar view of the rod after being twisted and dried.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, Figs. 1, 2, and 3, A represents a suitable frame or base which may be made of wood or metal, to one end of which is secured a clamping jaw B having pivoted to it the movable clamping jaw B' between which jaws one end of the green or steamed wooden rod C is firmly clamped preferably by means of a clamping screw *b* or equivalent clamping device.

The other end of the rod C is clamped between the pivoted jaws D and D' preferably by means of a clamping screw *d* as shown in Figs. 1 and 2.

The clamping jaw D has a shank D'' which is journaled in a bearing E as shown.

Outside of the bearing E is secured to the shank D'' a ratchet F with which a pawl *f* is adapted to engage so as to hold the rod that is being spirally twisted in such twisted position during the operation.

In practice I prefer to provide the outer end of the shank D'' with a crank D^3 by means of which the operator may apply force in twisting the rod more or less as may be desired.

In the twisting operation it is desirable to produce a longitudinal tension on the wooden rod or bar so as to cause it to remain perfectly straight and for this purpose I provide the bearing E and its connections with means for adjusting it in a longitudinal direction relative to the axis of the rod that is being twisted and I have for this purpose shown said bearing E as provided with a horizontal plate E' adapted to be longitudinally adjusted in a suitable guide A' secured to or forming a part of the base or frame A as shown in Figs. 1, 2, and 3.

The bearing E may be adjusted by means of a regulating screw G journaled in the bearing E and moving with the latter, its inner end working in a nut *g* secured to or forming a part of the base A as shown in Fig. 2.

By adjusting the bearing E any desired longitudinal tension may be imparted to the rod C while being twisted and this tension is maintained during the drying process so as to prevent it from being warped or crooked.

In shaping the wooden rods or bars I proceed as follows: I take a wooden rod or bar of any desired section either green or steamed and secure it between the clamping jaws B B' and D D' as shown in Figs. 1 and 2. I then twist the rod more or less by turning the crank D^3 until the desired twist is obtained in which position the twisted rod is held by

the ratchet F and its pawl *f*. During the twisting operation I apply proper tension on the wooden rod by longitudinally adjusting the bracket or bearing E for the purpose stated. After the rod has been twisted and secured in position between its clamps I allow it to dry either in a suitable drying chamber or in the atmosphere, and when dry I release it from its clamps when it will permanently remain in the twisted form imparted to it.

In the drawings I have shown one clamp stationary and the opposite one rotary, but this is not essential as both clamps may be made rotary in opposite directions if so desired without departing from the essence of my invention.

What I wish to secure by Letters Patent and claim is—

The herein described method of shaping wooden bars having a polygonal shape in cross-section, which consists in twisting said bars spirally while in an unseasoned state, imparting a longitudinal tension to said bars during the twisting operation, and finally, rigidly maintaining the bars in such twisted and longitudinally strained position until dry, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 8th day of February, A. D. 1894.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
SYDNEY HARRIS.

No. 538,928. Patented May 7, 1895.

Fig. 2.

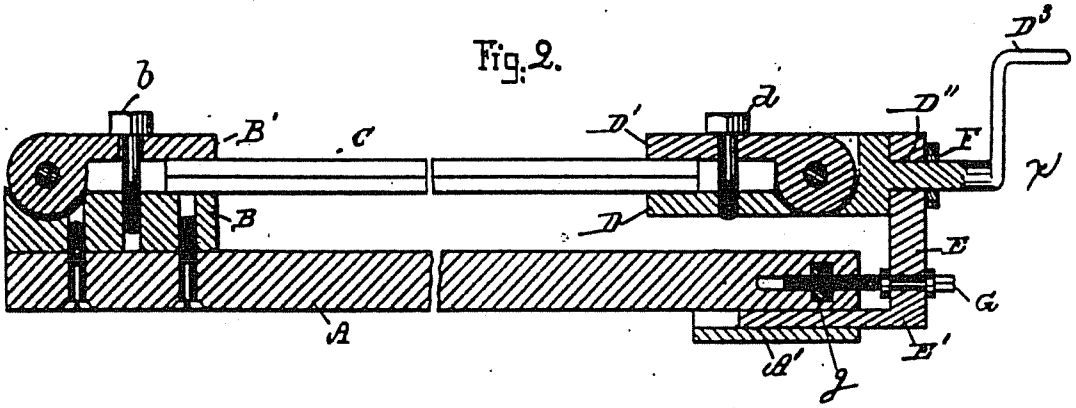


Fig. 1.

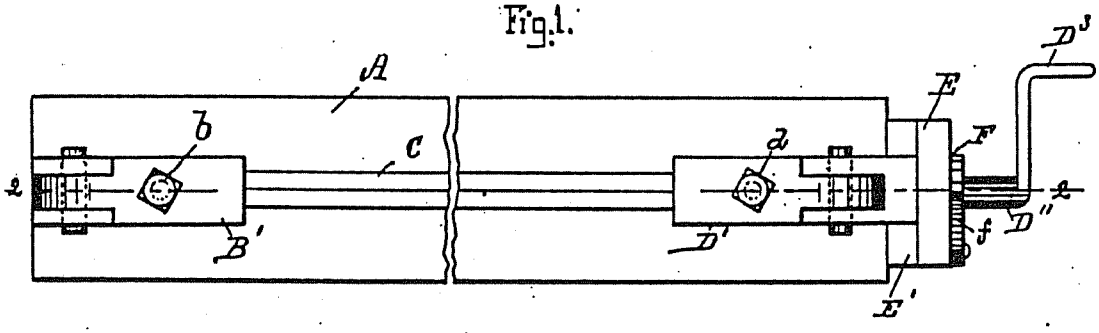


Fig. 3.

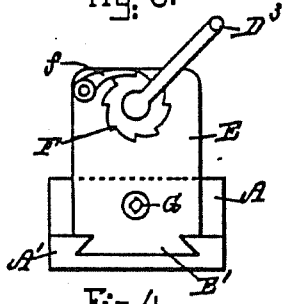


Fig. 4.

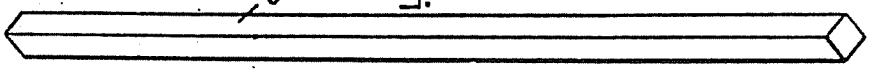


Fig. 5

Witnesses.
Laurette N. Miller
Hattie M. Hanson

Inventor.
Albert K. Ordway
by Albert Andrews
his atty.

UNITED STATES PATENT OFFICE.

ALBERT H. ORDWAY, OF SOUTH FRAMINGHAM, MASSACHUSETTS.

METHOD OF MAKING WOOD OR RATAN ROPES.

SPECIFICATION forming part of Letters Patent No. 656,040, dated August 14, 1900.

Original application filed June 26, 1899, Serial No. 721,861. Divided and this application filed December 18, 1899. Serial No. 740,791. (No specimens.)

To all whom it may concern:

Be it known that I, ALBERT H. ORDWAY, a citizen of the United States, residing at No. 15 Union avenue, South Framingham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Methods of Making Wood or Ratan Ropes, of which the following is a specification.

This invention relates to an improved method of making wood or ratan ropes; and this my present application is a division of the one filed by me June 26, 1899, Serial No. 721,861, upon which Letters Patent No. 637,652 were issued and dated November 21, 1899.

The invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the spirally-grooved metal rod used for twisting or shaping the wood or ratan strands or rods. Fig. 2 represents a cross-section on the line 2 2 shown in Fig. 1. Fig. 3 represents a side elevation of said spirally-grooved metal rod, showing the ratan or wooden rod or strand placed in the spiral groove thereon during the twisting or shaping operation. Fig. 4 represents a cross-section on the line 4 4 shown in Fig. 3. Fig. 5 represents a side view of one of the twisted or shaped wood or ratan rods or strands after being shaped or twisted, and Fig. 6 represents a side elevation of a wood or ratan rope or coil comprised of two or more of the twisted or shaped wood or ratan rods or strands.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

For the purpose of twisting or shaping ratan or wooden rods or strands I prefer to make use of a cylindrical metal spindle A of any suitable length and thickness. The said metal spindle has on its periphery a spiral groove B, adapted to receive the wood or ratan rod or strand C that is to be shaped or twisted.

In carrying out the operation of shaping or twisting the wood or ratan rods or strands I take them in a pliable form, either green or steamed, and place each of such in the spiral groove B on the metal spindle A and confine its ends in position on said spindle A, preferably by means of rings or clamps D D, as shown in Figs. 1 and 3, after which the wood or ratan rod or strand C is allowed to remain in position on said spirally-grooved spindle until dry, when it is removed and caused to retain the shaped or twisted shape, as shown in Fig. 5. Two or more of such twisted or shaped rods or strands are united or connected together in the form of a rope or spirally-wound rod C', as shown in Fig. 6, and this is accomplished simply by laying the previously-shaped strands together in a spiral form, in which position the rods or strands are intertwisted or intertwined—that is, each strand surrounds the others in the rope in close contact to form a solid rope, and thus they will be retained and, as it were, locked together by reason of the original twisting or shaping operation given to the individual rods or strands, as above set forth.

Having thus fully described the nature of my invention, I wish to secure by Letters Patent and claim—

The herein-described process of making wood or ratan ropes which consists in first individually twisting a series of wood or ratan rods about a suitable support while in a steamed or moist state, then positively confining the same upon the support in such twisted shape until dried, and finally bringing the twisted wood or ratan rods together in intertwined relation to form the rope, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT H. ORDWAY.

Witnesses:
ALBAN ANDRÉN,
LAURITZ N. MÖLLER.

A. H. ORDWAY.

METHOD OF MAKING WOOD OR RATAN ROPES.

(Application filed Dec. 18, 1899.)

(No Model.)

Fig. 1.

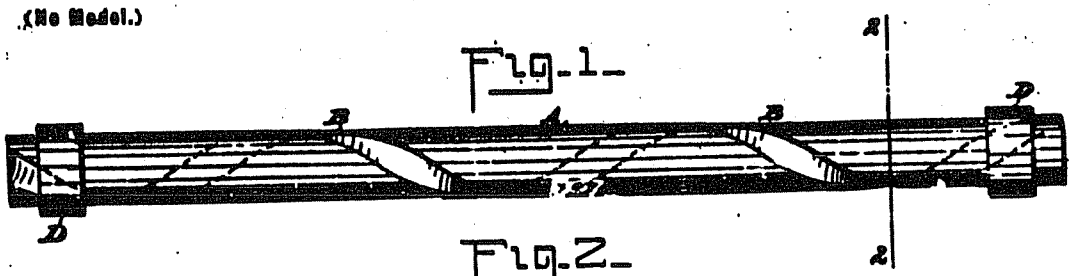


Fig. 2.

Fig. 3.

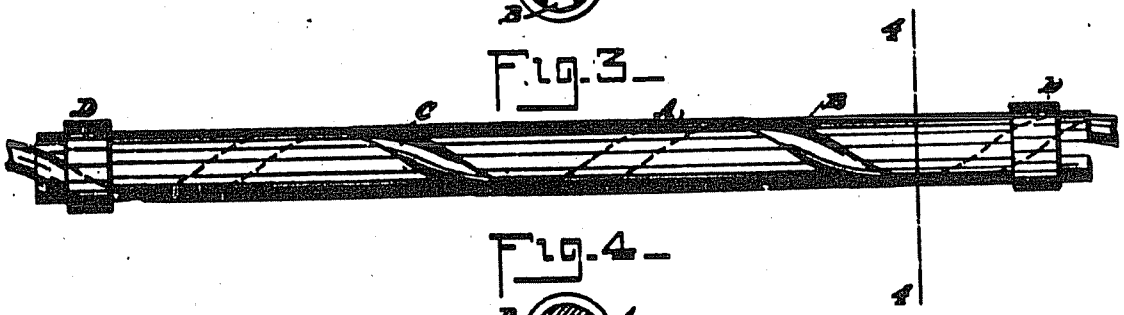
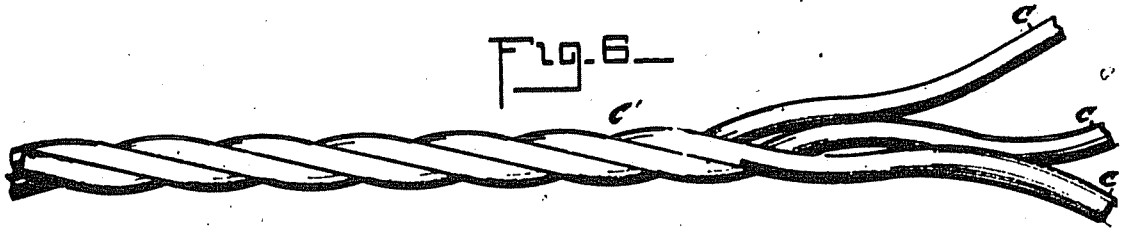


Fig. 4.

Fig. 5.

Fig. 6.



Witnesses

Inventor

Albert H. Ordway

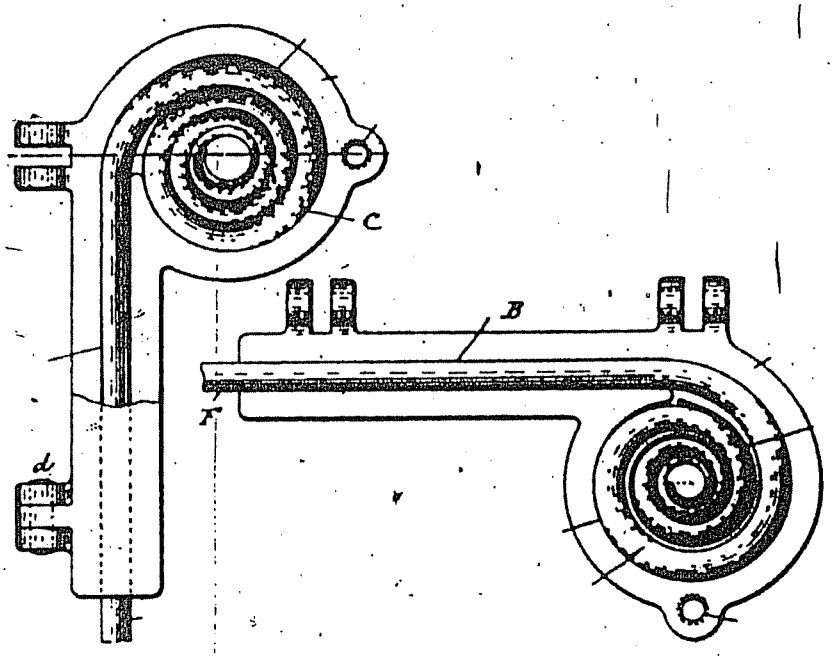
by James L. Norris.

atty

656 040

Claim.—A sink having a drain-opening and an overflow-opening communicating with the drain-opening below the inner surface of the sink, and a drain-pipe disposed in the drain-opening, said pipe having an interior continuous flange forming a plug-seat at its upper face and having its inner periphery threaded to receive a hose, said pipe having openings therein below the flange and communicating with the overflow, and guard-bars disposed transversely of the pipe between the openings and the flange.

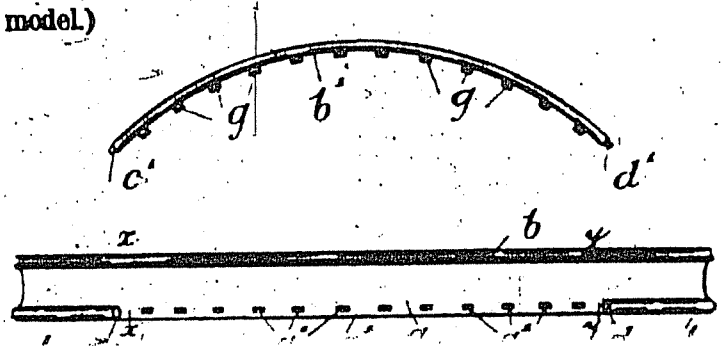
655,889. SHAPING WOOD. ALBERT H. ORDWAY, South Framingham, Mass. Filed Mar. 13, 1900. Serial No. 8,519. (No model.)



Claim.—1. The herein-described device for making scrolls on bars of wood, consisting of a shaping-block, having a guide-tube and having connected thereto a scroll-former into which the wooden bar is forced, and caused to be formed into a scroll form, substantially as and for the purpose set forth.

2. The herein-described device for making scrolls on bars of wood, consisting of a shaping-block having a guide-tube, and having connected thereto a scroll-former, provided with a helical guide-rib, serving as a guide for the formation of the scroll of the wood bar when forced into said scroll-former substantially as and for the purpose set forth.

655,890. RIM FOR DETACHABLE PNEUMATIC TIRES. CHARLES J. PALMER, London, England. Filed May 29, 1900. Serial No. 18,364. (No model.)



655,891.

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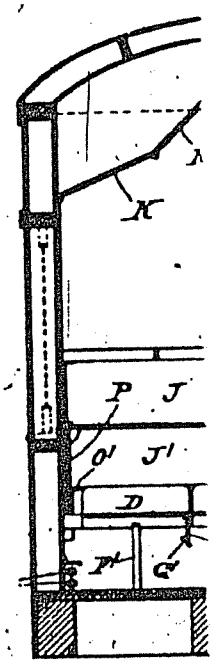
Chicago, Ill., assi
Filed Apr. 16, 19(



Claim.—1. The
tition-supports, one a
tion connected with e
drawn down so as to
justable longitudinal
front of the seat, the
each seat, substantiall

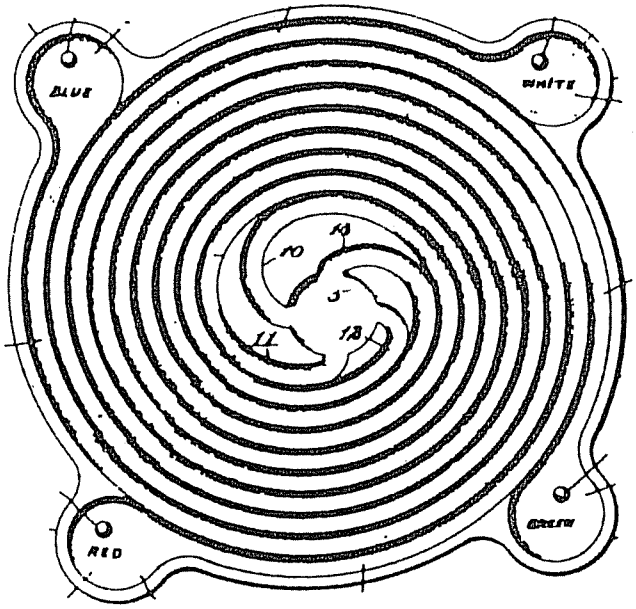
2. The combina
able piece associated
being used in the ord
to be moved so as to
or couch for the pass
with said seat and in
scribed.

3. The combina
as ordinary seats in a
one associated with

substantially as described.

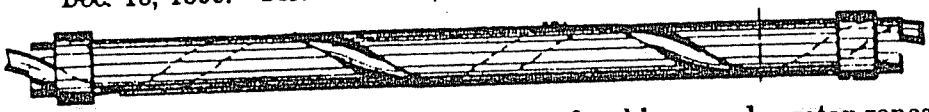
5. The eye-shade, comprising the two brow-band parts, with the eye-shade portions depending therefrom and joined thereto by narrow integral parts, substantially as described.

656,039. PUZZLE. THOMAS J. NOLAN, Albany, N. Y. Filed Sept. 6, 1899. Renewed June 13, 1900. Serial No. 20,184. (No model.)



Claim.—A puzzle comprising a box or board formed with equidistant side pockets, and a central pocket; a series of independent trackways consisting of a plurality of convolutions, each of said trackways connecting one of the side pockets with the central pocket corresponding in color to that of the pocket; a ball or marble for each side pocket; a transparent cover for the box or board and a supplemental opaque cover for the central pocket secured at the center of the transparent cover.

656,040. METHOD OF MAKING WOOD OR RATAN ROPES. ALBERT H. ORDWAY, South Framingham, Mass. Original application filed June 26, 1899, Serial No. 721,861. Divided and this application filed Dec. 18, 1899. Serial No. 740,791. (No specimens.)

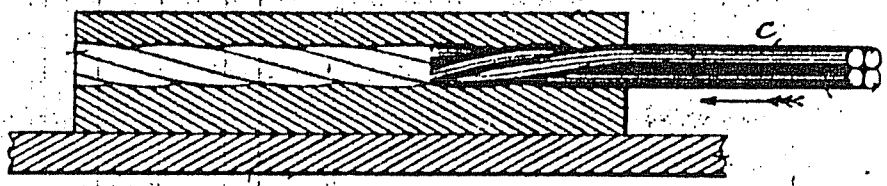


Claim.—The herein-described process of making wood or ratan ropes which consists in first individually twisting a series of wood or ratan rods about a suitable support while in a steamed or moist state, then positively confining the same upon the support in such twisted shape until dried, and finally bringing the twisted wood or ratan rods together in intertwined relation to form the rope, substantially as described.

656,041. BACK-PEDAL BRAKE AND COASTER. JOHN N. PARKS, Rochester, N. Y. Filed Dec. 8, 1899. Serial No. 739,634. (No model.)

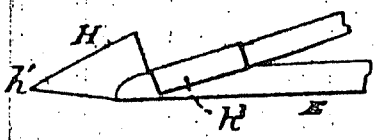
operating-rod, of feeding mechanism for the strip to be acted upon, a winding-roll for the completed music-roll, and counting mechanism actuated from the feeding mechanism for indicating the number of punches made for a measure or note.

650,269. PROCESS OF TWISTING WOODEN RODS INTO ROPE FORM. ALBERT H. ORDWAY, South Framingham, Mass. Filed Mar. 13, 1900. Serial No. 8,520. (No specimens.)



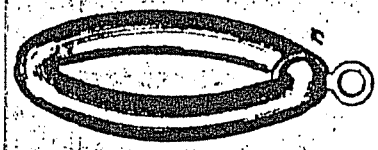
Claim.—The herein-described process of twisting a series of wood or ratan bars or strands into rope form, consisting in forcing such bars or strands, while green, steamed or moist, into a twister-block having a longitudinal twister bore or perforation and allowing such twisted rope to set and dry, substantially as and for the purpose set forth.

650,270. CULTIVATOR. JOSEPH PERRIN, Lordsburg, N. D. Filed Jan. 25, 1900. Serial No. 2,767. (No model.)



Claim.—In cultivators, the plow-point H having point h', shank h^2 and flanges h^3 h^4 combined as shown with standard D, shoe E and moldboard I, the flange h^3 being bent around the front end of the moldboard and shoe while the flange h^4 is bent around the side of standard and shoe, for the purpose set forth.

650,271. CURTAIN-POLE RING. FRANK PERRY, New York, N. Y., assignor to the J. Kroder and H. Reubel Company, same place. Filed Dec. 5, 1899. Serial No. 739,289. (No model.)



Claim.—1. A curtain-pole ring provided with an eye projecting therefrom, said eye comprising two interlocked members encircling the ring, substantially as described.

2. A curtain-pole ring provided with an eye projecting therefrom, said eye comprising two flanged members encircling the ring, the flange of one of the members being crimped upon the flange of the other, substantially as described.

650,2
York, N.
place.

Claim.—
to be secured
and provided
projecting in
the end of a
substantially
2. An a
secured to a
and provided
and a casing
a loop or soc
gaged by the
3. An a
secured to a
and provided
projecting in
a hump or lu
provided with
4. An a
secured to a
and provided
of the pole
socket fitting
loops engagin

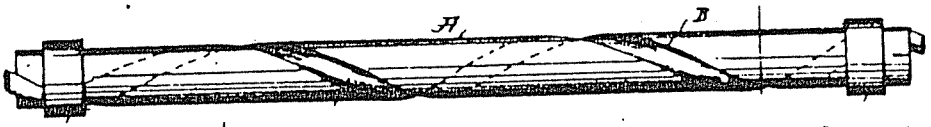
650,27
J. MINAR,
model.)
Claim.—
ing side drags
of the central
and a longitud
scribed.
2. A harr

and the spring engaging said handle substantially as set forth.

10. The combination of the car having adjacent to its doorway a recess and a slotted plate covering the same, and the bag-holding rod having at one end a head fitted to said recess and slot and adapted at its other end to support the bag substantially as set forth.

637,652. WOOD OR RATAN TWISTING OR SHAPING DEVICE.

ALBERT H. ORDWAY, South Framingham, Mass. Filed June 26, 1899. Serial No. 721,861. (No model.)

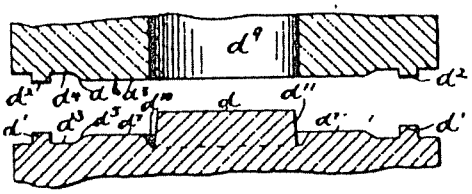


Claim.—1. The herein-described device for shaping wood or ratan rods, consisting of a cylindrical spindle having a spirally-grooved periphery and rings arranged and longitudinally movable on the opposite ends of said spindle for engaging the ends of the wood or ratan rod and holding it in place in the groove, substantially as described.

2. The herein-described device for shaping wood or ratan rods, consisting of an elongated cylindrical spindle having a spirally-grooved periphery, said spiral groove being U-shaped in cross-section and of such relative depth and width as to wholly receive a ratan rod fitted therein, and the convolutions of said groove being long drawn out or widely separated from one another, and rings arranged and longitudinally movable on the opposite ends of said spindle, substantially as described.

637,653. APPARATUS FOR MAKING SPROCKET-WHEELS.

NEFF E. PARISH, Cleveland, Ohio, assignor to The Parish & Bingham Company, same place. Filed Apr. 23, 1897. Serial No. 633,445. (No model.)



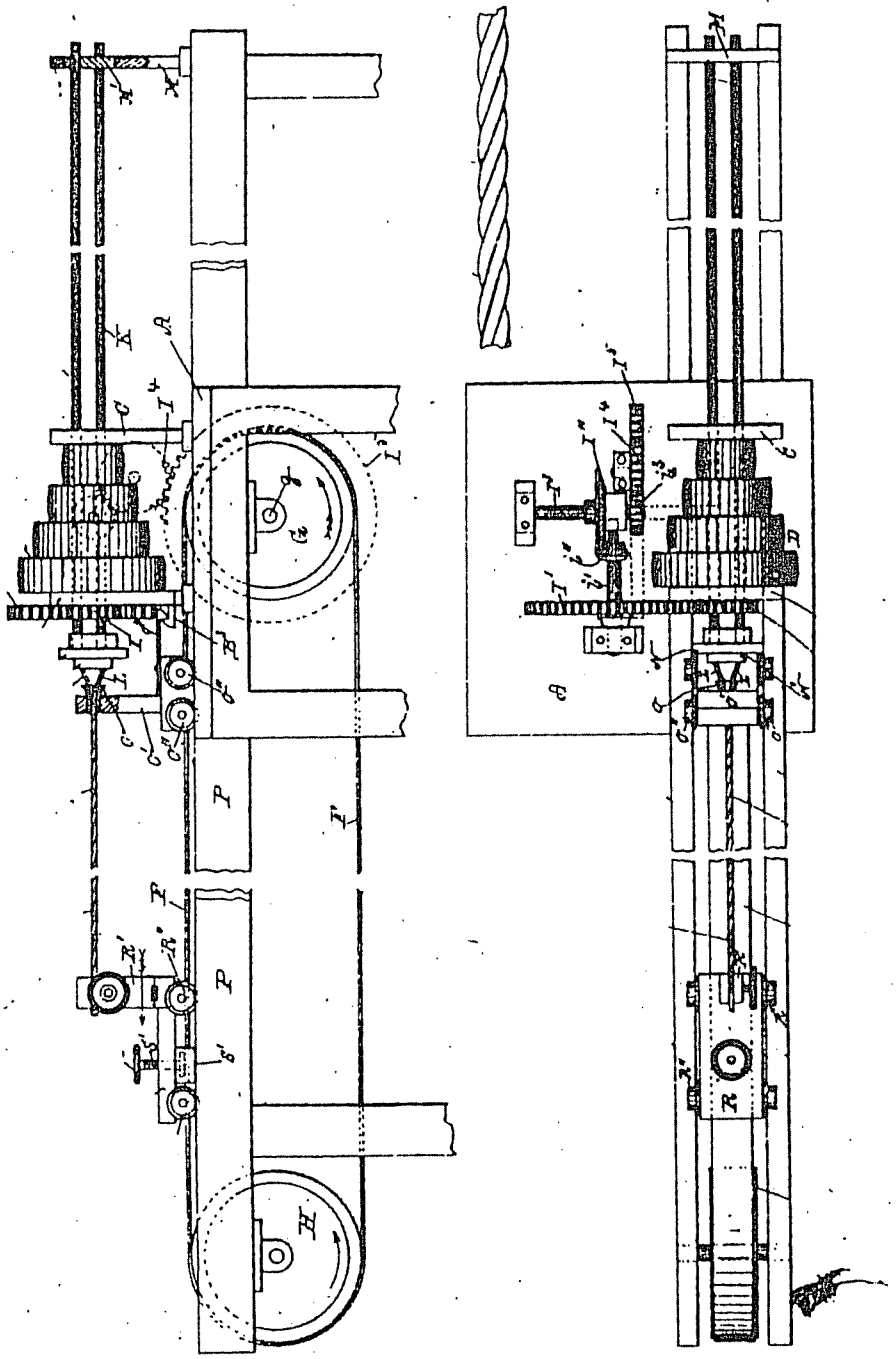
Claim.—1. A pair of coöperating dies for making metal wheels, one of which dies has a plain annular surface, and a groove depressed within such surface, the other of which dies has a complementary plain annular surface, and means for directing said dies into proper presentation to each other, whereby said complementary annular surfaces are adapted to compress between them a wheel-blank, substantially as set forth.

2. A pair of coöperating dies for making metal wheels, one of said dies having a plain annular surface and a groove depressed between said surface, the other of said dies having a similar plain annular surface, one of said dies having a pilot, and the other a coöperating hole, substantially as set forth.

3. A pair of coöperating dies for making sheet-metal wheels, one of said dies having a plain annular surface, and a groove cut within the inner periphery of said surface, said die also having a raised pilot, the other die having a complementary plain annular surface and an opening in which said pilot may enter, substantially as set forth.

4. A pair of coöperating dies for making metal wheels, one of

556,203. WOOD OR RATTAN TWISTING MACHINE. OSCAR H. ORDWAY, South Framingham, Mass. Filed June 25, 1895. Serial No. 553,942. (No model.)



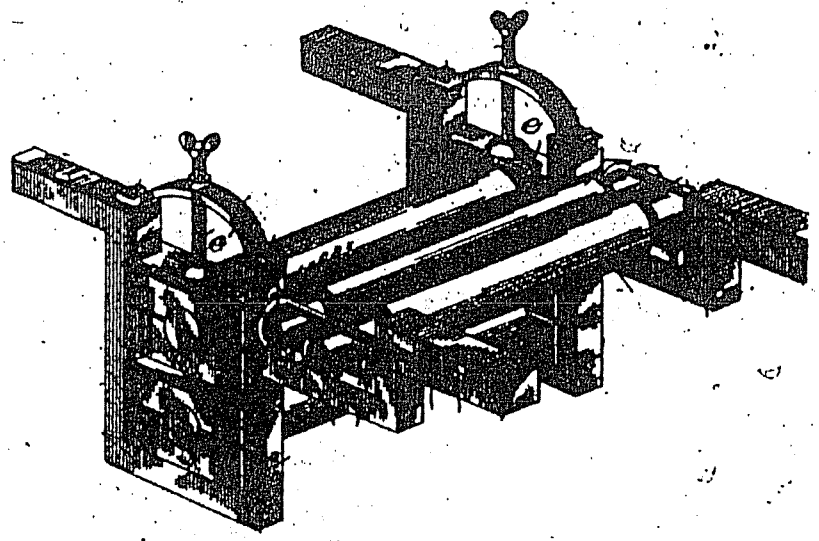
Claim.—1. In a wood or rattan twisting machine, in combination a rotary twister-head having a series of longitudinal perforations or guide-pipes therein, a stationary guide-tube and a longitudinally movable drawing and clamping device, and an endless-belt-feeding device adapted to be connected to said drawing and clamping device, substantially as and for the purpose set forth.

2. In a wood or rattan twisting device in combination a rotary twister head having a series of longitudinal perforations or guide-pipes therein, a perforated twister-die secured to said pipes, a guide-tube normally held stationary relative to said twister-die and adapted to be longitudinally adjustable in relation to it, an endless carrying-belt and intermediate connecting mechanism between it and the rotary twister-head and a longitudinally-movable drawing and clamping de-

vice adapted to be secured to said endless carrying-belt, substantially as and for the purpose set forth.

3. In a wood or rattan twisting machine, the combination with a rotary twister-head, and a rotary twister-die, of a normally-stationary guide adjustable to and from the twister-die, a drawing device adapted to clamp the twisted material, and mechanism for actuating the said twister-head and drawing device, substantially as described.

556,204. GALVANIZING-MACHINE. JOHN T. OWEN, Sharon, Pa. Filed Sept. 11, 1895. Serial No. 562,150. (No model.)

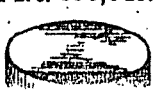


Claim.—1. In a galvanizing-machine, a frame having depending portions and upper lateral extensions, lower pressure-rolls having their journals fitted in said depending portions, upper pressure-rolls the journals of which are supported by said lateral extensions, and horizontally-disposed adjustable rods extended over the journals of one of said upper rolls and engaging at their free ends the journals of the other one of said upper rolls, whereby said rolls can be relatively adjusted and said journals will be held down on said lateral extensions, substantially as set forth.

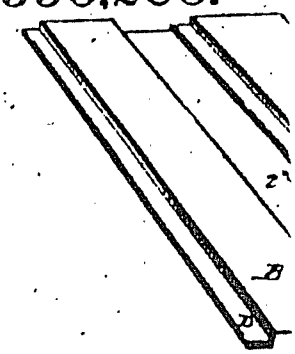
2. In a galvanizing-machine, a frame having depending portions and upper lateral extensions, lower pressure-rolls mounted in said depending portions, upper pressure-rolls supported by said lateral extensions, and rods adjustably connected to said extensions and extended over both journals of said upper pressure-rolls, said rods having hooked ends engaging the journals of the farther one of said rolls, substantially as set forth.

3. In a galvanizing-machine, a frame having lateral extensions, and lower pressure-rolls, L-shape plates fitted on said extensions, upper rolls having journals resting on said plates, keepers attached to said extensions, hooked rods having threaded portions and extended through said keepers, and nuts on said rods, said rods extending over the journals of both of said upper rolls and at their hooked ends engaging the journals of the farther one of said rolls, substantially as set forth.

556,205. BOTTLE-STOPPER. WILLIAM A. PALMER, Mobile, Ala. Filed July 15, 1895. Serial No. 556,040. (No model.)



556,206.



556,207. MI
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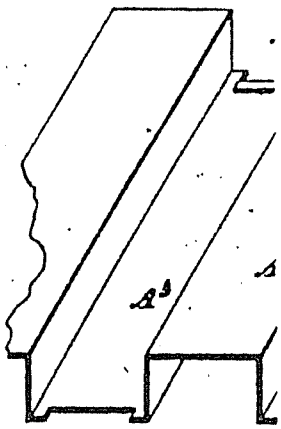

Claim.—1. Meta
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as shown and describ

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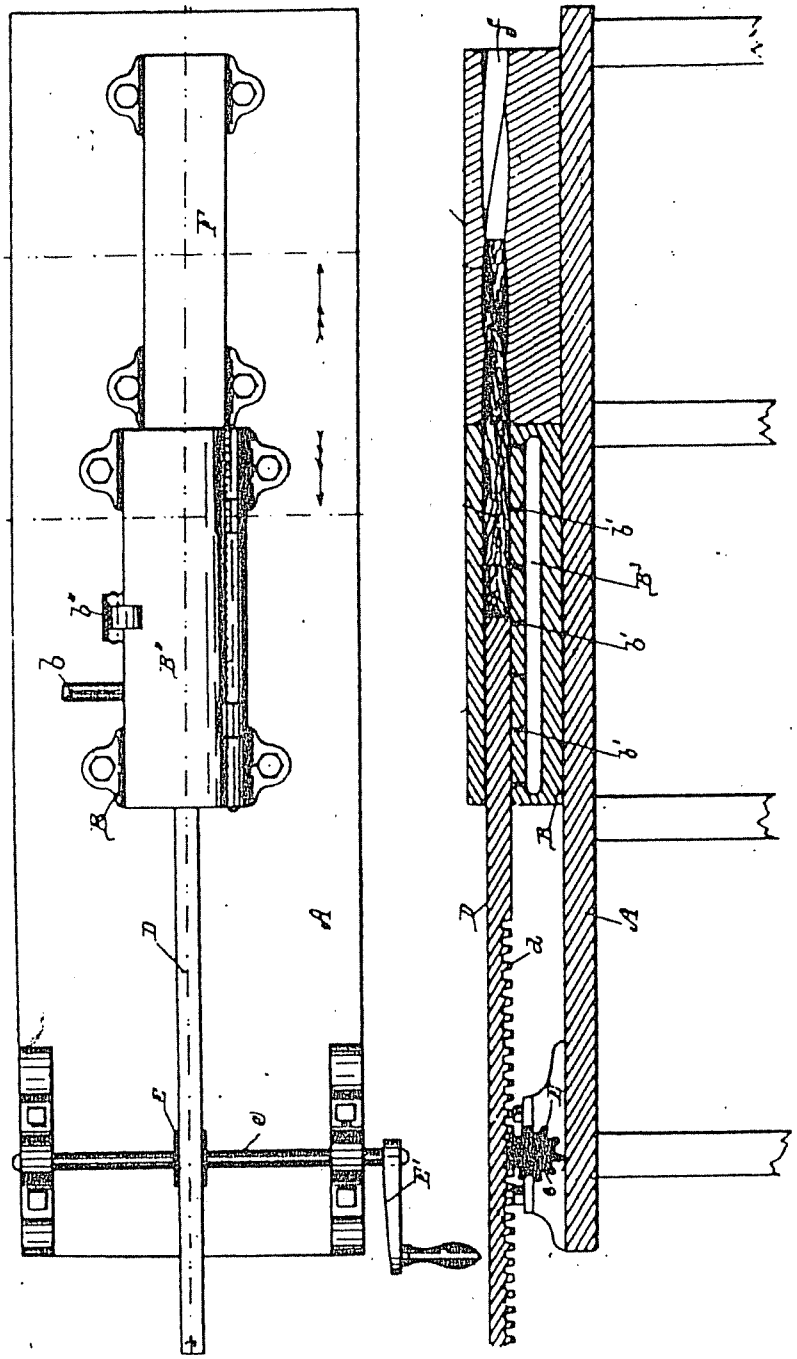
with cut-out flaps, to
being adapted to be

595,199. MACHINE FOR TWISTING WOOD. Oscar H. Ordway, South Framingham, Mass., assignor to Albert H. Ordway, same place.

Filed Mar. 29, 1897. Serial No. 629,673. (No model.)



Claim.—1. A machine for imparting a torsional twist to wooden bars or rods having an angular shape in cross-section, consisting of a twister die having a longitudinal bore of angular shape in cross-section, the walls of which are twisted torsionally along their length, and means for guiding and forcing the bars or rods to be shaped into said twister-die, said guiding means being arranged to hold one end of the said rod or bar against rotation while being forced into the said twister-die.

2. A machine for imparting a torsional twist to wooden bars or

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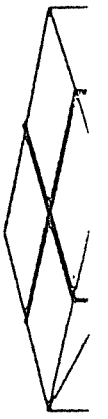

Claim.—1.
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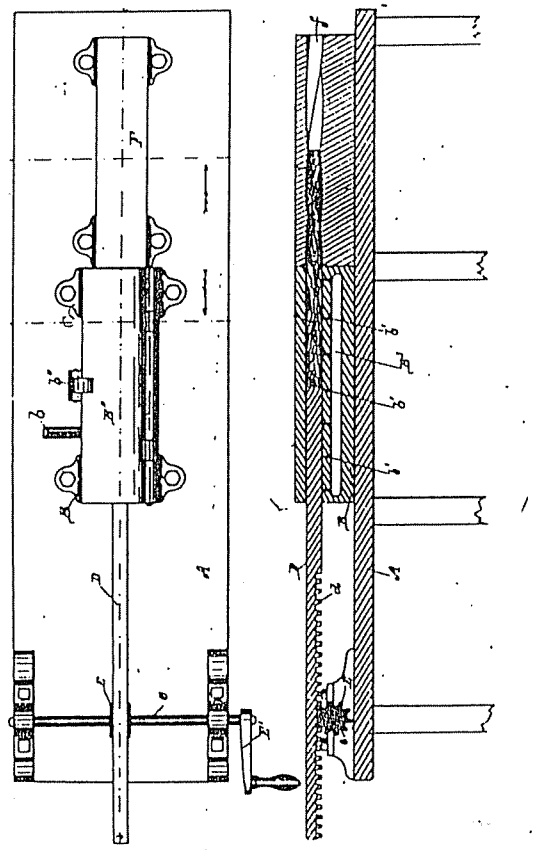
595,199. MACHINE FOR TWISTING WOOD. OSCAR H. ORDWAY, South Framingham, Mass., assignor to Albert H. Ordway, same place. Filed Mar. 29, 1897. Serial No. 629,673. (No model.)



Claim.—1. A machine for imparting a torsional twist to wooden bars or rods having an angular shape in cross-section, consisting of a twister die having a longitudinal bore of angular shape in cross-section, the walls of which are twisted torsionally along their length, and means for guiding and forcing the bars or rods to be shaped into said twister-die, said guiding means being arranged to hold one end of the said rod or bar against rotation while being forced into the said twister-die.

2. A machine for imparting a torsional twist to wooden bars or rods having a polygonal shape in cross-section, said machine consisting of a twister-die having a longitudinal bore of uniform diameter throughout its length and of polygonal shape in cross-section, the inner walls of said bore being twisted torsionally along their length, and means for guiding and forcing the rods or bars to be shaped into said twister-die, said guiding means being arranged to hold one end of the bar or rod against rotation while being forced into the twister-die.

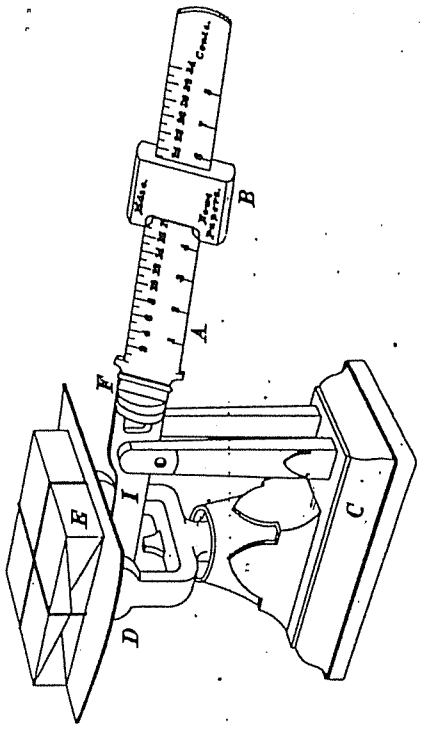
3. A machine for imparting a torsional twist to wooden bars or rods having an angular shape in cross-section, consisting of a longitudinally-grooved guide-block, said groove being of angular shape in cross-section and having a hinged cover by which access may be had to said groove, said guide-block being adapted to hold the rods or bars against rotation, a twister-die having a longitudinal bore of angular shape in cross-section, the inner walls of said bore being twisted torsionally along their length, and a driver or plunger for forcing the bars or rods to be shaped through the said guide-block and into the twister-die.

4. The herein-described machine for shaping wooden rods or bars, consisting of a twister-die having a longitudinally-twisted bore through which the green or steamed wooden bar is forced and in which it is allowed to remain until it retains its twisted form and means for holding one end of the bar or rod against rotation while it is being forced into the twister-die, substantially as and for the purpose set forth.

5. The herein-described machine for shaping wooden rods or bars, consisting in combination a longitudinally grooved or perforated guide-block, said groove being angular in cross-section, and adapted to hold one end of the bar or rod against rotation, a twister-die having a longitudinal twisted bore or perforation in alinement with the guide-groove in the guide-block, and a reciprocating driver or plunger for forcing the green or steamed bar through the guide-block and twisted bore or perforation in the twister-die, substantially as and for the purpose set forth.

6. The herein-described machine for shaping wooden rods or bars consisting in combination a guide-block having a longitudinal perforation for receiving the green or steamed wooden bar, a steam-jacket in said guide-block for forcing steam in contact with the wooden bar or rod, a twister-die having a twisted bore or perforation in alinement with the groove in the guide-block and a reciprocating driver or plunger for forcing the wooden bar through the guide-groove and through the twisted bore or perforation in the twister-die, substantially as and for the purpose set forth.

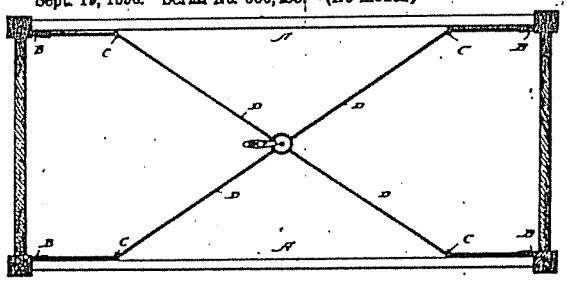
595,200. SCALE. HARVEY PADDOCK, St. Johnsbury, Vt., assignor to the E. & T. Fairbanks & Company, same place. Filed Apr. 27, 1897. Serial No. 634,148. (No model.)



Claim.—1. A postal scale comprising a revolving beam having figures on both sides indicating money values of different classes of postal matter and a poise sliding on said beam and having readings on both sides, indicating the character of article weighed, said readings being arranged adjacent to the line of figures which indicate the amount of postage required for the article in that particular class which is being weighed, substantially as described.

2. A postal scale comprising a revolving beam having figures on both sides indicating money value of different classes of postal matter and having markings upon the edge indicating divisions of pound and a poise sliding on said beam and having readings on both sides indicating classes of mailable articles, substantially as described.

595,201. BED-BRACE. SAMUEL R. PAYNE, Riddleton, Tenn. Filed Sept. 19, 1896. Serial No. 606,433. (No model.)



Claim.—The combination with the end and foot boards and the side rails of a bedstead, of the end posts thereto, the hooks B B secured in said end posts, the staples C C fixed to said side rails near said end posts, the crossed brace-wires D D, detachably secured to said hooks and staples, the casting-piece E, provided with a central bearing-orifice *a*, circumferential ratchet teeth *b*, and lateral guide-lugs *c*, the disk F provided with the integral lever-handle *f*, the concentric hub *g*, provided with the lateral pins *i i* and a spring-actuated pawl mounted in said handle and adapted to engage the teeth on the casting-piece E, substantially as shown and described.

vided with guides for receiving a ticket to be printed, the guides being adapted to coincide with an aperture formed in the side of the casing, a hinged door mounted so as to cover part of said aperture, and a spring for holding the same normally closed, the construction being such that when it is desired to insert or remove a ticket from the said guides in the platen, the door can be pushed inwardly by the said platen, substantially as described.

10. In a ticket stamp and recorder, the combination with a suitable casing, of a printing mechanism mounted therein, a pivotal platen also mounted in said casing, spools carried by the said platen, the said spools being adapted to carry a web of paper, a bail pivotally mounted in each of said spools and engaging a recess formed in the spindle of each spool, the construction being such that when the end of the web of paper is inserted beneath the bail and the bail is pushed into the recess in the spindle, the paper will be held firmly upon the spools, substantially as described.

635,179. SPRING ROCKING-CHAIR. ALBERT H. ORDWAY, South Framingham, Mass. Filed July 21, 1899. Serial No. 724,610. (No model.)

Claim.—The herein-described rocking-chair comprising the base A, A, the stay or brace a'', and rockers B, B, in combination with springs each consisting of a substantially straight upper portion d, a looped portion d'' at one end, and a substantially straight lower portion d^3, each of said springs being attached at one end to the base, its looped portion encircling the stay or brace a'', and its lower free portion lying in the same vertical plane with and directly beneath the upper straight portion d, and a bail e connecting said free end of the

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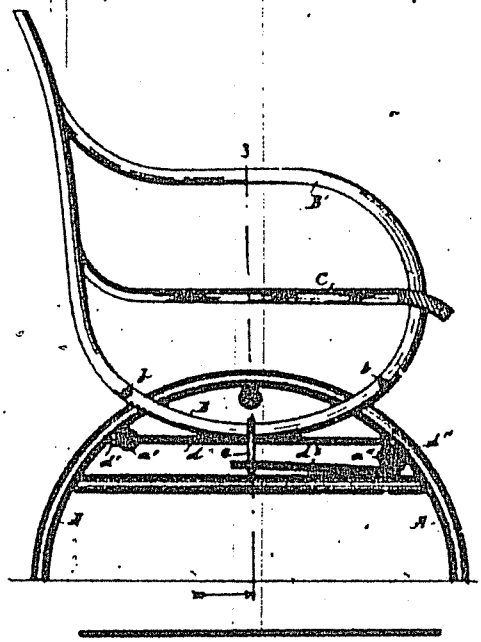
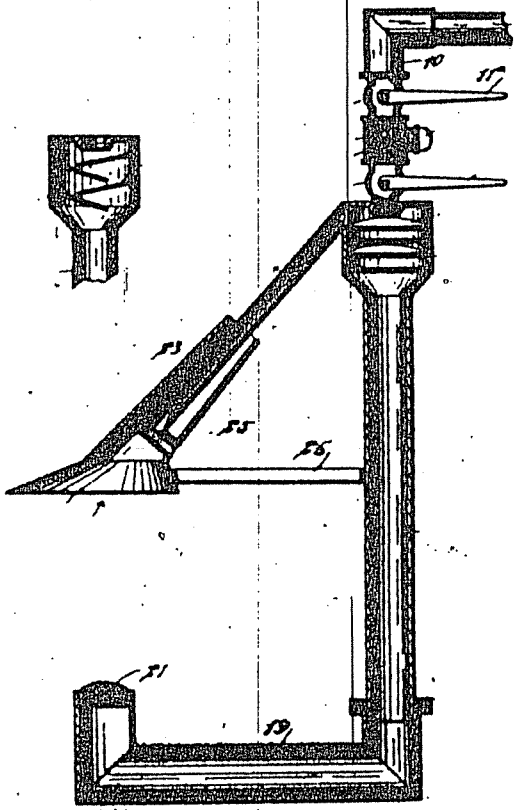
spring to the rocker, substantially as described and for the purpose specified.



685,180. GASOLENE-FIXTURE. JOHN H. PEDEN, Lexington, Ky. Filed Feb. 20, 1899. Serial No. 706,150. (No model.)



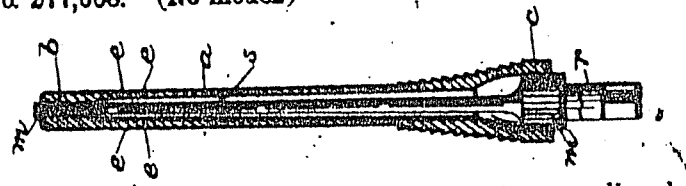
Claim.—1. A gasolene-fixture comprising a tubular body, a vaporizing-chamber connected with one end of the body and provided with means for retarding the passage of gasolene supplied thereto, a burner located at the other end of the tubular body, a funnel located

set forth.

2. In combination with a stiff base or lap board having a pocket on its face, and also a part for writing on which remains uncovered a flap, also provided with a pocket and attached to said board, in order that when folded on the face of the latter both of these pockets may be protected, as described.

3. A lap-board having flaps attached to its ends and provided on the inside with pockets, said lap-board having pockets on its face near its ends, and a central writing space or tablet, which is left uncovered when said flaps are folded over to protect the pockets, as set forth.

398,670. METHOD OF ENAMELING BOBBINS, &c. LORENZO STONE and ALONZO O. AUSTIN, Providence, R. I. Filed June 19, 1888. Serial No. 277,608. (No model.)

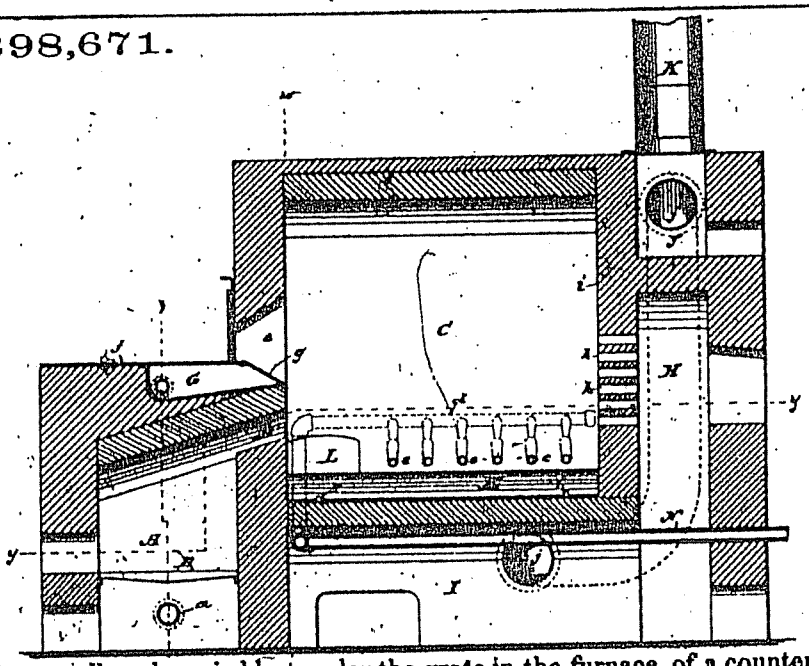


Claim.—The improvement in the method of enameling bobbins, spools, &c., which consists, first, in subjecting the bobbin to a high temperature before enameling; second, reaming the spindle hole or center; third, covering the exterior and interior surfaces of the bobbin with enameling material, as Japan varnish, and baking it thereon, and, fourth, in reaming the enameled surface of the spindle-hole to fit the driving-spindle, substantially as hereinbefore described and set forth.

398,671. REFUSE-BURNER. EDGAR G. TEED, Brooklyn, N. Y. Filed Apr. 19, 1888. Serial No. 271,236. (No model.)

Claim.—1. The combination of the furnace A, the combustion-chamber C, located at one side thereof and having the charging-opening *e* in its front wall, the hearth E in the bottom of the combustion-chamber, a flue, D, leading from the upper part of the furnace into the lower part of the combustion-chamber above the hearth, an air-blast delivering air into the combustion-chamber above the hearth and into the furnace below the grate, and an air-blower having its discharge-mouth extending through the front wall of the combustion-chamber beneath its charging-opening for directing an air-blast into the combustion-chamber to counteract the pressure therein and carry the charge thereinto, substantially as described.

2. The combination, with a furnace, A, a combustion-chamber, C, communicating therewith and having a charging-opening in its



front wall, and an air-blast under the grate in the furnace, of a counter air-blower having its discharge-mouth extending through the front wall of the combustion-chamber directly beneath its charging opening to overcome the pressure in the combustion-chamber produced by the air-blast under the grate and the chimney and to carry the charge into the combustion-chamber, substantially as described.

3. The combination of the furnace A, the combustion-chamber C at one side thereof, having the charging-opening *c* and bottom hearth, the flue D, leading from the upper part of the furnace-chamber into the combustion-chamber above the hearth, the flues F, located along the sides of the combustion-chamber and connecting at one end with the furnace-chamber above the grate, the blast-nozzles *c*, leading from the side flues into the combustion-chamber above the hearth, headers *d*, connected with the nozzles for supplying them with fresh air, and an air-blast pipe, N, connected with the headers, substantially as described.

4. The combination of the furnace A, the combustion-chamber C, located at one side thereof, having a bottom hearth, E, and provided in its wall with a charging-opening, *e*, a flue, D, leading from the upper part of the furnace into the lower part of the combustion-chamber, a cleaning-opening, L, located in the wall of the combustion-chamber on or about a level with the hearth and between the latter and the charging-opening, and an air-blowing mechanism having a discharge-mouth extending through the wall of the combustion-chamber beneath the cleaning-opening, to prevent the gases and flame escaping through the cleaning-opening when the hearth is being cleaned during the operation of the furnace, substantially as described.

5. The combination of the furnace A, a chimney, K, having a smoke-box, J, a combustion-chamber, C, located between the furnace and chimney, having transverse contracted flues *h* in its rear wall, and provided with a hearth, E, and a front charging-opening, *e*, the flue D, leading from the upper part of the furnace into the lower part of the combustion-chamber, an ash-pit, I, under the hearth of the combustion-chamber, a vertical flue, H, located in rear of the combustion-chamber and connecting the contracted flues with the ash-pit, and an external flue, *j*, leading from the ash-pit to the smoke-box in the chimney, substantially as described.

398,672. MOVABLE TOY. RICHARD TEICHMANN, Brooklyn, N. Y.

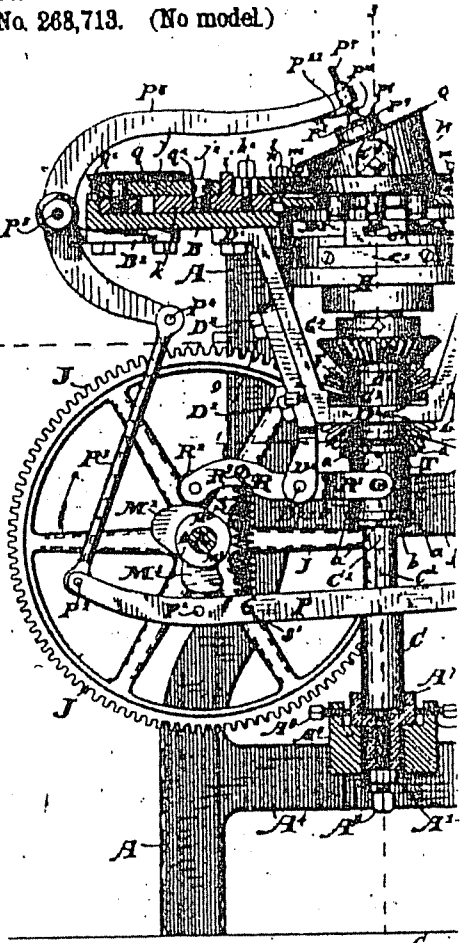
Filed July 24, 1888. Serial No. 280,881. (No model.)

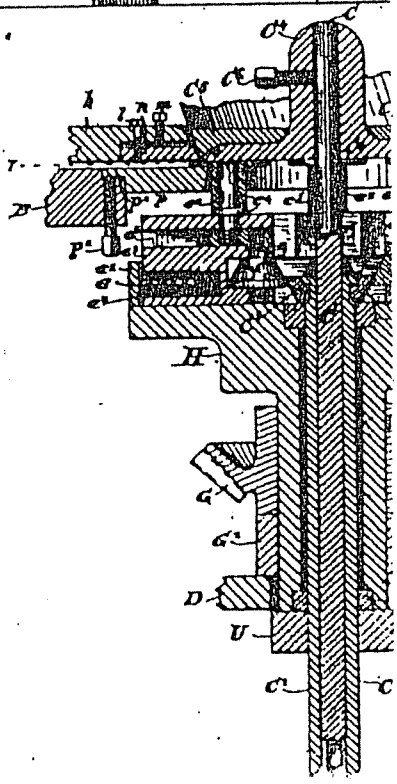
posed of a hind part having a guide open
front part, of a wheeled crank-axle pivoted
ating handle-rod applied loosely to the crank
said guide-opening, and a connecting-rod
and the front part, whereby a falling and
to the front part alternately with the rising
hind part, substantially as set forth.

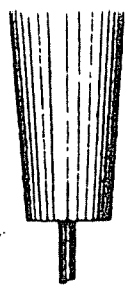
398,673. MACHINE FOR FLANGI

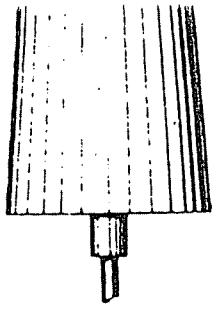
DERS. WILLIAM THOM, Indianapolis, Ind.

No. 268,713. (No model.)









Claim.—In a driving-belt, the combination, with a plurality of parallel strips and hooks for joining the ends of the same together, of loose flat metal links pivoted to said strap at intervals and connecting them together, substantially as and for the purpose cited.

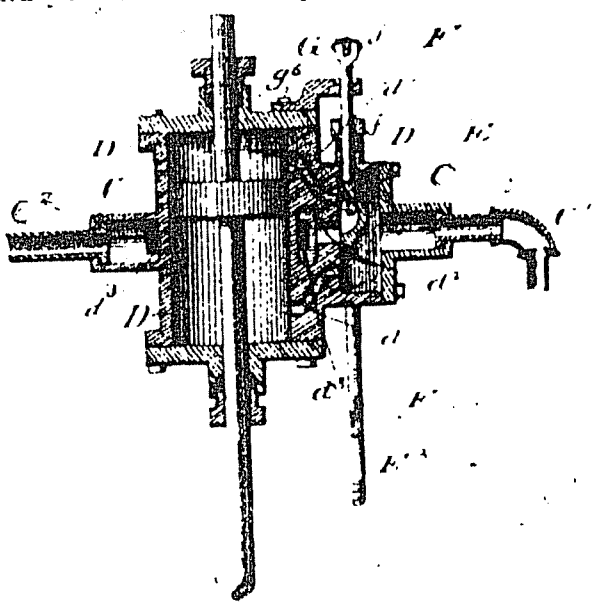
467,766. OSCILLATING STEAM-ENGINE. FRANK OLIVER, Economy, Pa. Filed June 18, 1891. Serial No. 396,738. (No model.)

Claim.—1. In an oscillating steam-engine, the combination, with a main shaft, of a cylinder having the two hollow trunnions and a steam-chest and exhaust-passage connected to the said trunnions, a slide-valve working in said steam-chest, a valve-rod moving in suitable guides connected to said valve on the opposite side from the said shaft, a yoke inclosing the said steam-chest connected to said valve-stem, and an eccentric rod and strap connected to an eccentric on said shaft, with means for shifting said eccentric, substantially as described.

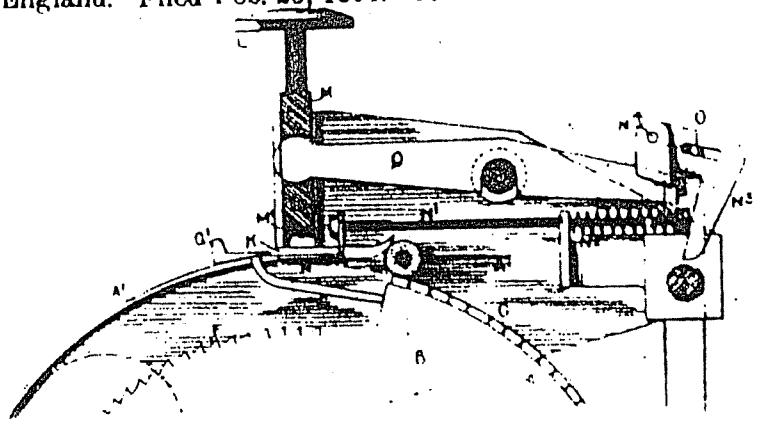
[redacted]

six months after filing the right to the patent was transferred to Dr. Veed on 1/26/1892

2. In an oscillating steam-engine, the combination, with the cylinder D, having ports d, d', and d^2, exhaust-passage d^3, and hollow trunnions C, of the steam-chest D', a slide-valve contained therein, the valve-rod F, connected to said slide-valve, the guide G, having two hinged arms bolted together, for said valve-rod, the yoke F^v, connected to said valve-rod, and the eccentric-rod, eccentric-strap, and eccentric connected to said yoke, substantially as described.



467,767. CASH-RECEIPT-CHECKING APPARATUS. JOHN BATH, London, England. Filed Feb. 25, 1891. Serial No. 382,744. (No model.)



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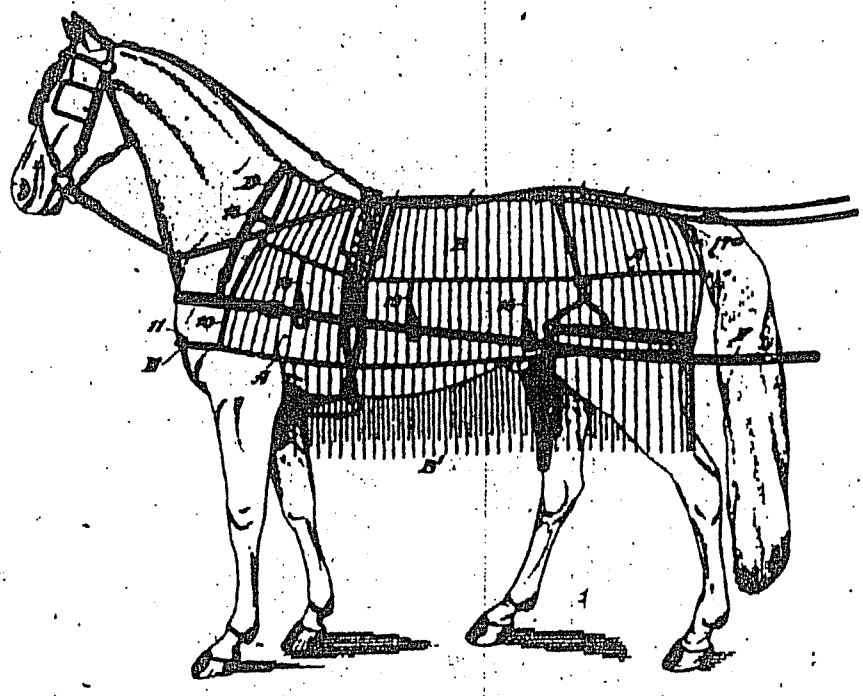
and each running lengthwise of the head, substantially as set forth.

4. A dental instrument or trimmer as a new article of manufacture, comprising a shank and an elongated head having two opposite slightly-convex surfaces and a rounded edge connecting the said surfaces with cutting edges in parallel lines upon the said surfaces and each running lengthwise of the head, the said rounded edge being also slightly convex and the said head being provided with opposite ends that are smooth and slightly rounded, substantially as set forth.

650,261. FLY-NET. PHILIP S. MINTON, New York, N. Y. Filed Sept. 22, 1899. Serial No. 731,316. (No model.)

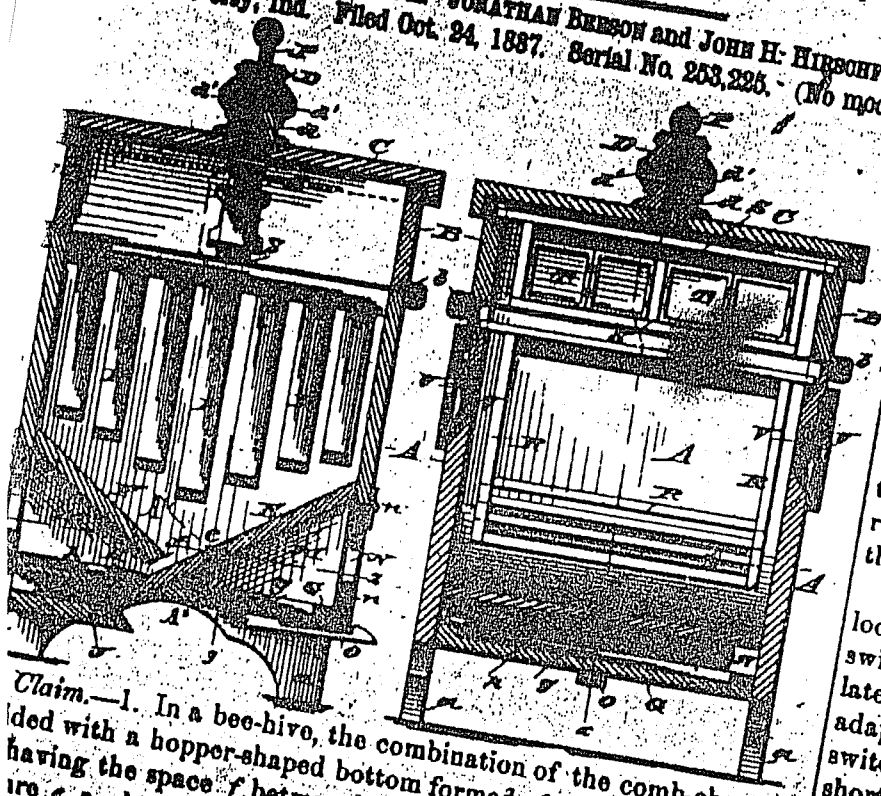


Claim.—1. As an improved article of manufacture, a fly-net for horses, provided with an elastic front section and elastic breast-straps for the purpose described.

2. An article of manufacture, comprising a fly-net having its front vertical member formed of an elastic cord provided at its ends with breast-straps and means for connecting the straps, the said net being further provided with elastic retaining-cords adapted to be passed around portions of the harness, and means for forming loops in the said retaining-cords, as set forth.

in secured to the latch-casing and having its upper edge inclined from a point above said pin to a point below the same, and the spring-arm secured to the latch and extended in normal position across said fin and above said pin, whereby when the latch is retracted said arm will ride down the fin to a position behind said pin, substantially as and for the purposes hereinbefore set forth.

396,724. BEE-HIVE. Jonathan Benson and John H. Hirschfeld, Saline City, Ind. Filed Oct. 24, 1887. Serial No. 253,225. (No model.)



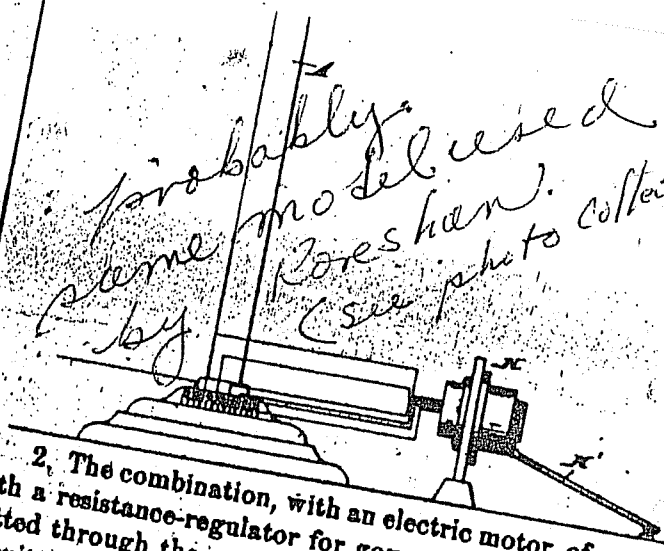
Claim.—1. In a bee-hive, the combination of the comb-chamber ded with a hopper-shaped bottom formed of the inclined boards having the space *f* between them, and the board E, having the re *e*, a closed bottom below the hopper-shaped bottom and of the section G and the reversible section H I, and the screen- N, for closing the chambers formed by and between the said e, substantially as herein shown and described.

A bee-hive made with a reversible floor-section, H I, spaced strips J to form a moth-receiving pocket, K, and said part fed with a recess *A*, forming a feed-trough, and the part I as an alighting-board, substantially as herein set forth.

The combination, with a bee-hive having a hopper-shaped ith a space between the boards thereof, and provided with ured to the sides below the said bottom of the recessed he plain board I, and the strips J, arranged between the e and forming a central moth-pocket, K, and end grooves the said cleats, the boards H I and strips J forming a re- reversible box-like structure, substantially as and for the orth.

5. DEVICE FOR CONTROLLING ELECTRIC MOTORS. Blanda Detroit, Mich. Filed Mar. 28, 1888. Serial No. (No model.)

The combination, with an electric motor, of a switch verning a current-regulator and another switch mech- the current may be short-circuited around the field nature, turned on through both, or reversed apted to be operated by

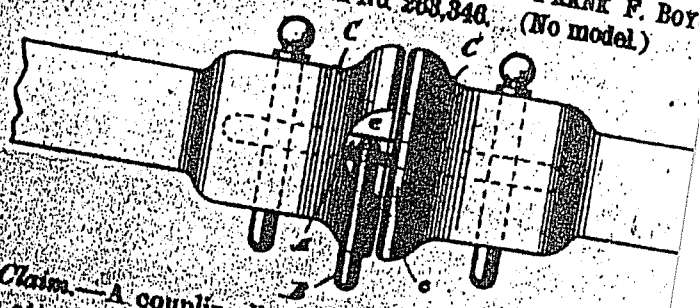


2. The combination, with an electric motor, of a swit with a resistance-regulator for governing the amount o mitted through the motor and another switch construc circuit the current from the field-magnets or armatur reverse the current, one of said switches adapted for hand and the other by the foot, substantially as and for described.

3. The combination, with an electric dental motor, o located upon the stand and adapted for operation by hand switch located adjacent thereto at the floor and adapted f by the foot, one of said switches governing the short-ci turning on, and direction of the current, and the other g resistance-regulator, which determines the amount of curr through the motor, substantially as and for the purposes

4. The combination, with an electric dental motor, located upon the stand adjacent to the hands of the op switch adapted to govern the resistance-regulator, wher lated the amount of current admitted through the moto adapted for operation by hand, and in connection therew switch located at the floor adjacent to the foot of the short-circuiting and regulating the direction of the adapted to be operated by the foot of the operator, subs and for the purposes described.

396,726. CAR COUPLING-LINK. Frank F. Boyc Filed Feb. 8, 1888. Serial No. 263,346. (No model.)



Claim.—A coupling-link, A, provided with an arm, being attached to the side of the link at either side of it combination with the ordinary coupling-pin and a draw-he provided on one side with a recess, *c*, of sufficient depth to arm B, substantially as and for the purposes set forth.

396,727. TEMPORARY BINDER FOR PHOTOGRAP Irvine H. Brown, New York, N. Y. Filed Nov. 4, 1887. 254,250. (No model.)

Claim.—1. A holding-device strip of suitable

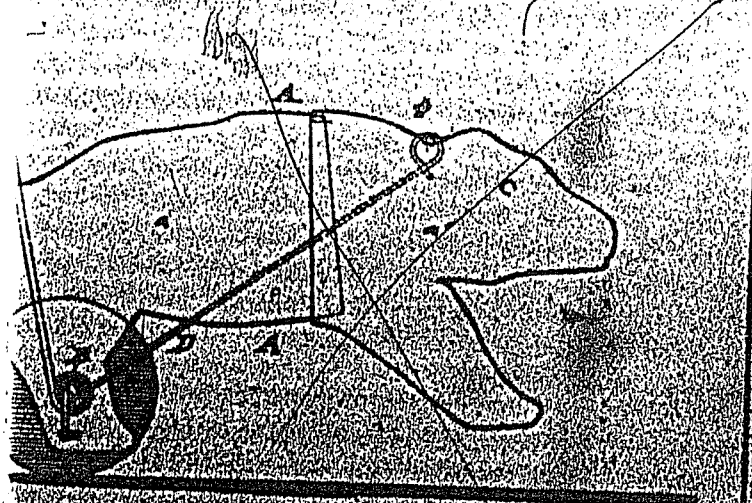
...o-chamber above the grate, the blast-nozzle c, leading in... ...ner into the combustion-chamber above the hearth, ...nected with the means for supplying them with fresh ... ...blast pipe A, connected with the headers, substantially ...

...e combination of the furnace A, the combustion-chamb... ...ne side thereof, having a bottom hearth, E, and pro... ...e wall with a charging-opening, e, a flue, D, leading from ... ...part of the furnace into the lower part of the combustion... ...s cleaning-opening, I, located in the wall of the combustion... ...n or about a level with the hearth and between the latter ... ...harging-opening, and an air-blowing mechanism having a ... ...mouth extending through the wall of the combustion-cham... ...h the cleaning-opening, to prevent the gases and flame es... ...ough the cleaning-opening when the hearth is being cleaned ... ...operation of the furnace, substantially as described.

...e combination of the furnace A, a chimney, K, having a ..., J, a combustion-chamber, C, located between the furnace ...oy, having transverse contracted flues h in its rear wall, and ...ith a hearth, E, and a front charging-opening, e, the flue D, ...m the upper part of the furnace into the lower part of the ...-chamber, an ash-pit, I, under the hearth of the combus... ...er, a vertical flue, H, located in rear of the combustion... ...nd connecting the contracted flues with the ash-pit, and an ...e, j, leading from the ash-pit to the smoke-box in the chim... ...ntially as described.

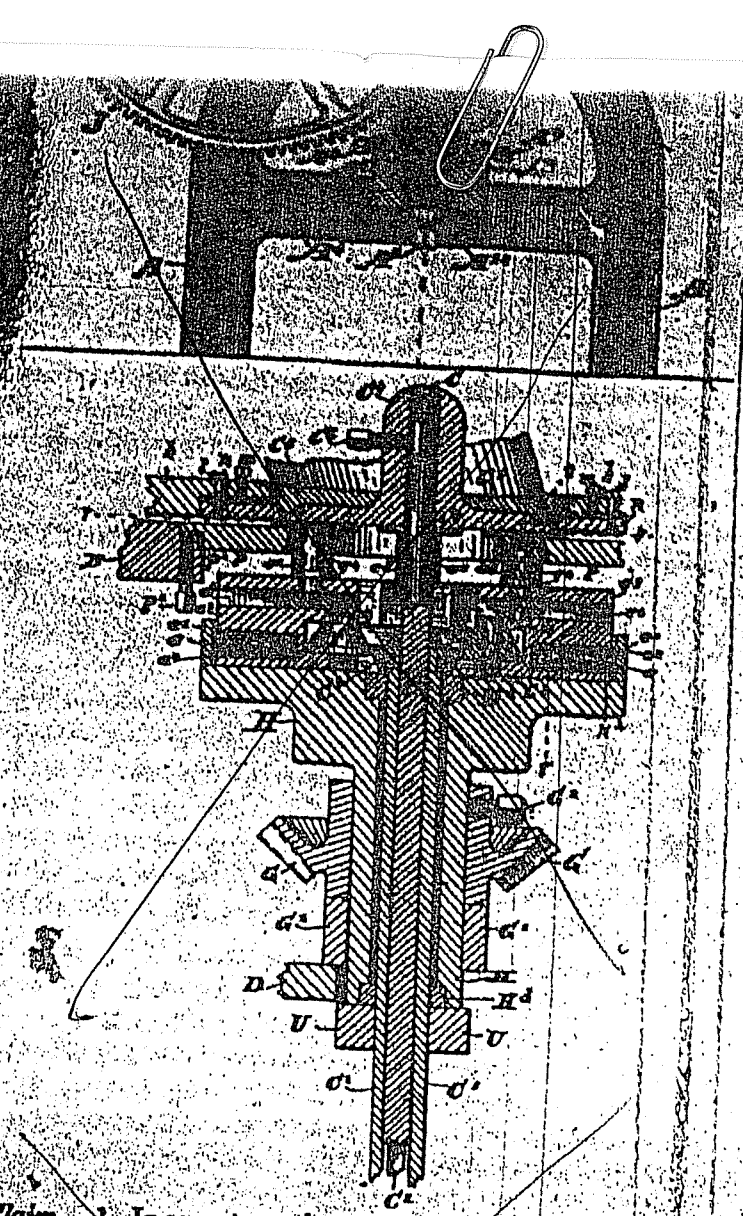
72. MOVABLE TOY. RICHARD TEICHMANN, Brooklyn, N. Y.

...ly 24, 1883. Serial No. 280,881. (No model.)



...—1. The combination, with the body or shell of a toy fig... ...dy being provided with a guide opening or eye, of a crank... ...d a, the ends of said cranks to said body at one end of the ...ls or rollers attached to said crank-axle, and an actuating ...that is applied loosely by an eye or sleeve to the crank... ...uided in the opening or eye of the body, substantially as ...

...combination, with the body or shell of a toy figure com...



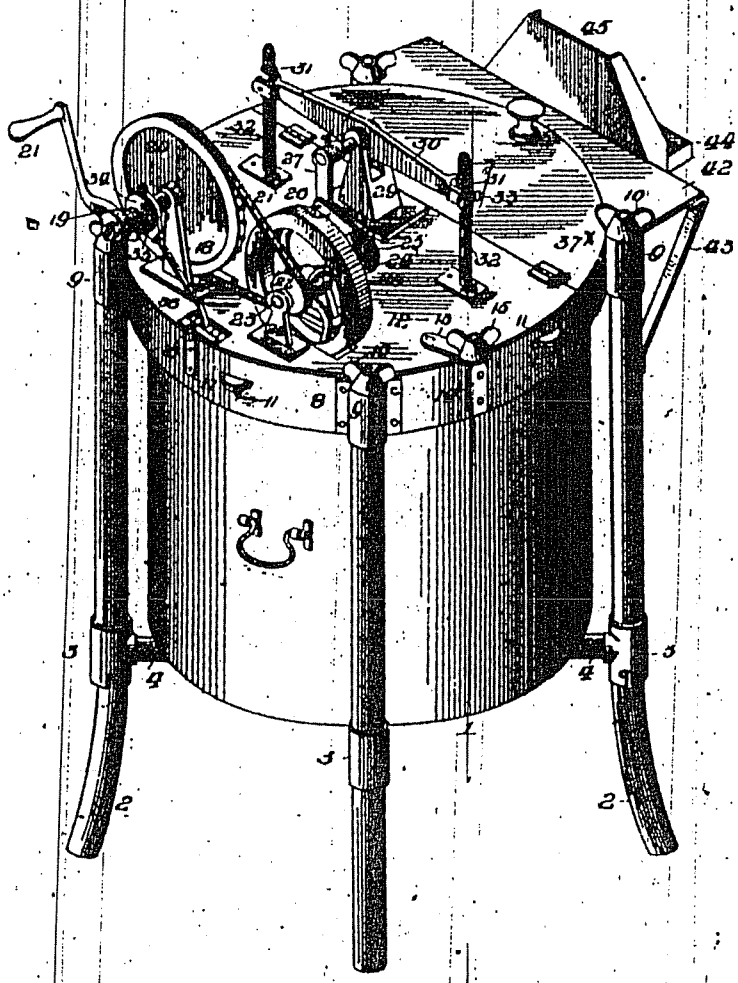
Claim.—1. In an automatic machine for forming flanges on sheet ... metal cylinders, the combination, with a rotating head carrying rad... ...ally-sliding carriers in which are journaled the flanging-rollers, of ... ...support for the sheet-metal section, an arm, P^6, carrying a hood, C... ...a lever, P, connected to said arm, the rods O, carrying the cone-colla... ...O^2 and collar T, a lever, R, connected to the collar T, and a shaft hav... ...ing cams actuating the levers P and R, substantially as described.

2. The combination, with a rotating head carrying radially-slid... ...ling carriers in which are journaled the flanging-rollers e^5, of a suppor... ...for the pipe-section, a series of slides moving in ways toward and fron... ...said support, said slides having jaw-plates A, a ring, B^4, to which th... ...slides are linked, a cam-slide, O^3, working in a slot in said ring, a lever ... O, connected to said slide, a cam, N, on counter-shaft K, rods O, car... ...rying the cone-collar O^2 and collar T, a lever connected to the latte... ...collar, and a shaft having a cam, M^2, substantially as described.

3. The combination, with the revolving head H, carrying th... ...sliding carriers e^5, having forming or flanging rolls e^6 and retracting ... ...springs e^7, of the standard O, the rods O', moving in channels in said ... ...standard and carrying the cone-collar O^2, a lever, R, fulcrumed on ...

and described.

685,001. WASHING-MACHINE. HERMAN A. SCHOREGGE, Wakefield, Nebr. Filed May 11, 1899. Serial No. 716,434. (No model.)



Claim.—1. In a washing-machine, the combination with the tub, the frame in which said tub is mounted, the cover, the drive-shaft mounted on said cover, the walking-beam carrying the plungers, also mounted on the cover, operatively connected with the drive-shaft, the toothed ring carried by the tub at the upper end and the pawl carried by the drive-shaft adapted to engage with the teeth of the ring; substantially as and for the purpose set forth.

2. In a washing-machine the combination with the tub or clothes-receptacle, the frame or support upon which the tub is pivotally supported, the cover, the walking-beam, the plungers carried by the walking-beam, the crank-arm carried by the shaft of the walking-beam, the fly-wheel, connecting-rod between the shaft thereof and crank-arm 27, the sprocket-wheel 22, on the shaft of the fly-wheel, the drive-shaft, the sprocket-wheel 20 mounted thereon, the chain connection between sprocket-wheels 20 and 22, the eccentric on the drive-shaft, the strap, the pawl secured to said strap, the toothed rim at the upper end of the tub with which the pawl engages, whereby when power is applied to the drive-shaft the plungers will be reciprocated and the tub rotated; substantially as described.

3. In a washing-machine, the combination with the tub, the frame or support in which the tub is removably held, consisting of the legs or standards and cross-pieces removably secured to said legs, the coupling in which the inner ends of the cross-pieces are removably secured, and the guide-rim removably mounted on the legs near the top thereof; substantially as described.

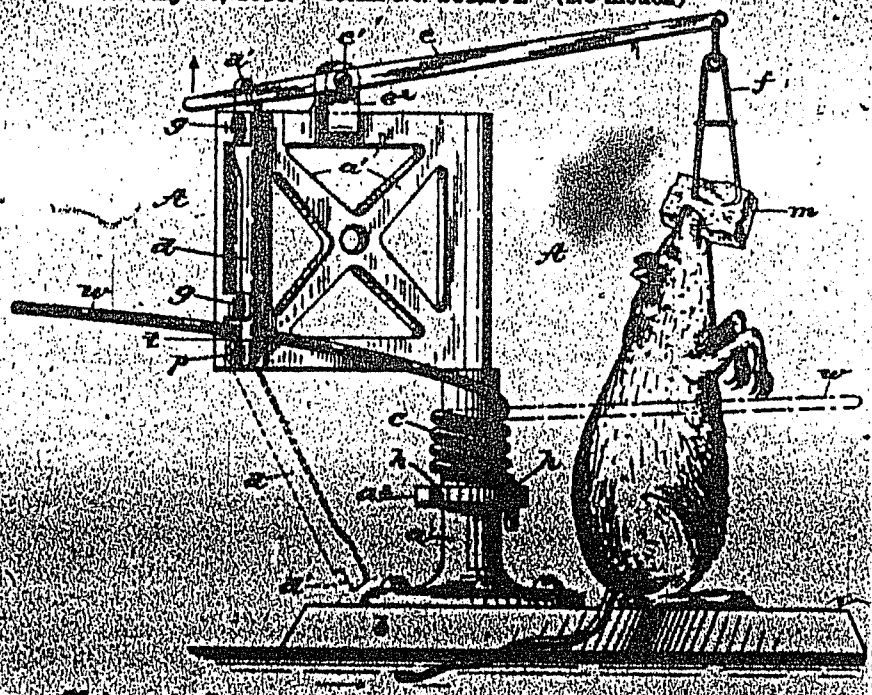
635,002. CULTIVATOR. ALBERT H. SHIPPER, Killingly, Conn. Filed Feb. 24, 1899. Serial No. 706,647. (No model.)

Claim.—1. A receiving-section for mail-boxes, said section provided at its top with a single flap and at its bottom with double flaps, the lower flaps independently connected with the upper flap by separate rods, and the section provided with a flange whereby it is adapted to be secured to the top of a mail-box, substantially as specified.

2. In combination with a mail-box having an opening in the cover or top thereof, a receiving-section having one end adapted to fit within the aforesaid opening, and a flange and bolts for securing same in said position, the receiving-section provided at its top with a single flap and at its bottom with double flaps, the lower flaps independently connected with the top flap by means of rods, substantially as and for the purpose set forth.

395,309. ANIMAL-TRAP. MARCUS J. BARTLETT, Providence, R. I.

Filed July 27, 1888. Serial No. 281,204. (No model.)



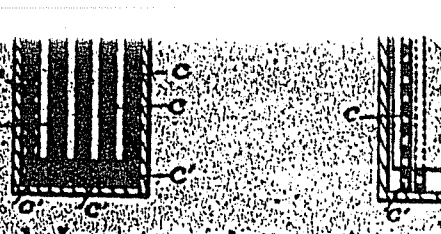
Claim.—1. In an animal-trap, the combination, with a standard having an extension provided with a bait-carrying tripping device, substantially as described, of a spring-arm, *w*, having an end thereof coiled around said standard and fixed thereon, the opposite end thereof engaging with the tripping device, substantially as described, and for the purpose hereinbefore set forth.

2. The combination, in an animal-trap, with a standard and the spring-arm *w*, coiled around and attached to said standard, of a check-lever, *d*, pivoted to an extension of the standard, adapted to retain the free end of said spring-arm in a normal position, and a pivoted tripping-lever, *e*, having one end adapted to engage the free end of the check-lever, and the other provided with a bait-carrying hook, all constructed and arranged substantially as shown and hereinbefore described.

3. The animal-trap A, hereinbefore described, consisting of the standard *a*, provided with an extension, *a'*, the spring-arm *w*, coiled around the standard and secured thereto, the check-lever *d*, pivoted to said extension, and the pivoted bait-carrying tripping-lever *e*, adapted to engage the upper end of the check-lever, all combined and adapted for operation substantially as shown and described.

395,310. DEVICE FOR CUSHIONING LOOSE JOINTS. JOSHUA E. BOYNTON and WILLIAM CRANE, Elyria, Ohio. Filed Apr. 21, 1888. Serial No. 271,625. (No model.)

Claim.—In combination with a whiffletree and evener or crossbar, the short barrel *a*, provided with the tube *a'* and elastic cushion *b*,



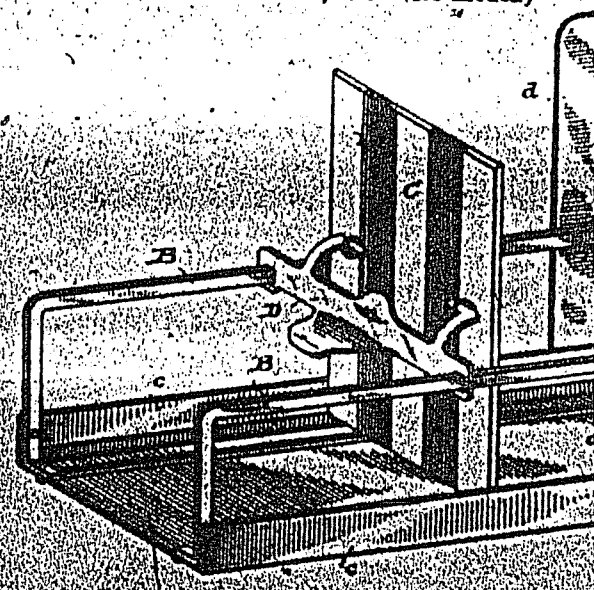
Claim.—1. In a storage-battery, the com
ments, of insulators C, said insulators consisting
rate loops having their heads *c'* at the bottom
to receive and hold the elements free from said
ranged that any one of the elements may be rem
with its inclosing loop or loops without disturbi
substantially as described.

2. In a storage-battery, the combination,
insulators, each of said insulators made in th
portions *c'* of which sustain and hold the batte
bottom of the cell and provided with fluted arm
both sides of the element, substantially as descr

3. The insulator C for storage-battery elem
posed of hard rubber or equivalent insulating ma
c', for supporting a battery-plate free from the b
fluted arms *c*, adapted to stand up along the s
ment, substantially as and for the purpose descr

395,312. FILE-BOX. MERLE E. CLINTON

signor to the Schlicht & Field Company, New
1, 1887. Serial No. 251,213. (No model.)



Claim.—1. As an improvement in metallic f
base and the flanged end rising therefrom, in c
angular side bars attached at one end to the fla
at the opposite end to the flanges of the base.

2. The improved body for a file-box, cons
front and the flanged base formed in one piece,
ened at the corner, substantially as shown.

395,313. COMBINED TRAP AND DIRT-C

CLOUETTE, Manchester, N. H., assignor of one-h
same place. Filed Apr. 30, 1888. Serial No. 27

Claim.—1. The herein shown and describe
the sink having a depression, the short tube pr
bottom of the depression, the cap having ribs c
provided with arms having hooked ends, the anch
tween the arms, and the ring encircling the said
as and for the purpose specified.

27,925. MEDICINE FOR DIPHTHERIA AND SCARLET FEVER.
MARIE ANTOINETTE BRADLEY, Mauston, Wis. Filed Jan. 23, 1896.

Essential feature.—A pictorial representation or likeness of Dr. Rensller Shear, being a bust picture and representing him as wearing a Derby hat. Used since July 29, 1895.

27,926. REMEDY FOR DISEASES OF THE THROAT AND LUNGS.
RICHARD HAHN, Brooklyn, N. Y. Filed Feb. 1, 1896.

GOLDEN
GLYCERINA

Essential feature.—The words "GOLDEN GLYCERINA." Used since January 3, 1896.