

J. M. Cobb. Sheet 1, of 5 Sheets.

Roofing App's.

No 93,859

Patented Aug 17, 1869

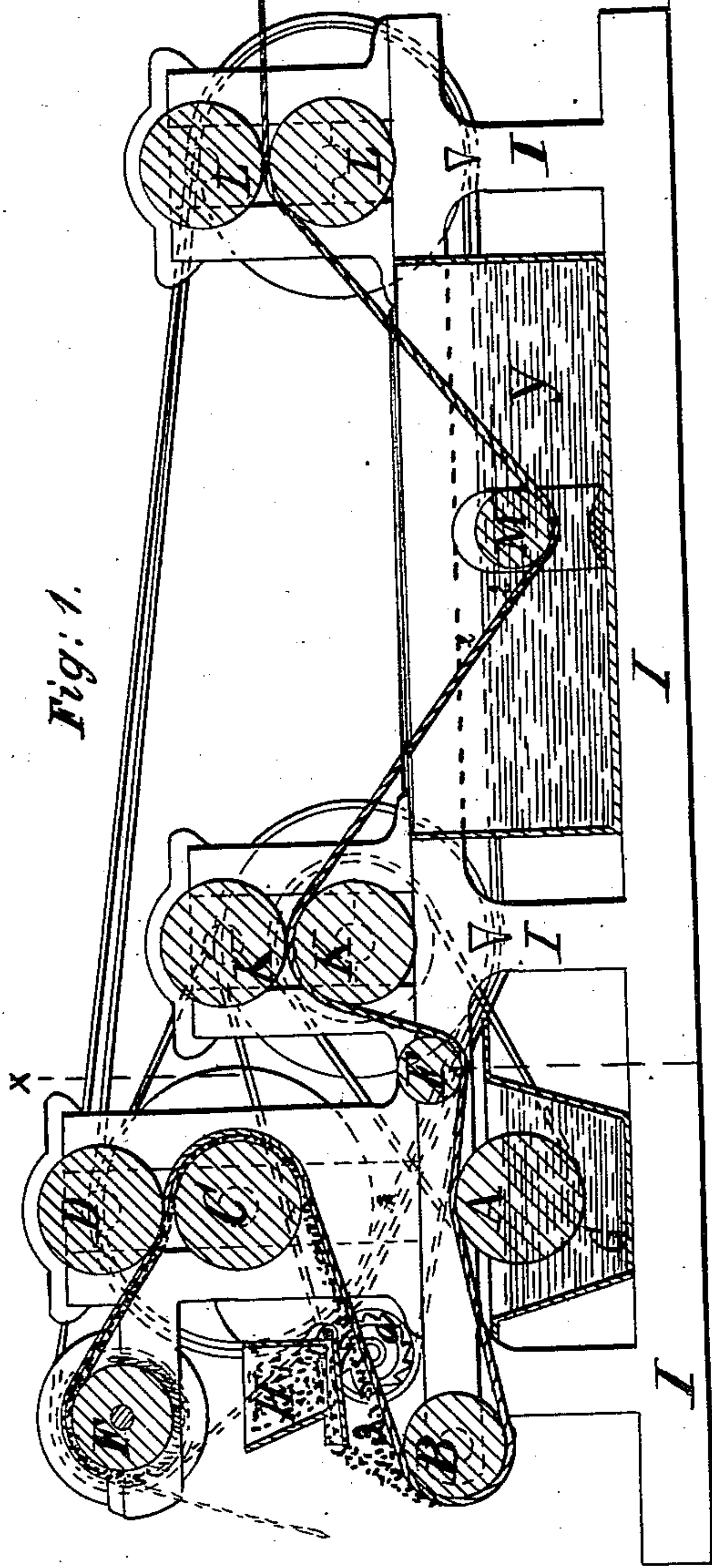
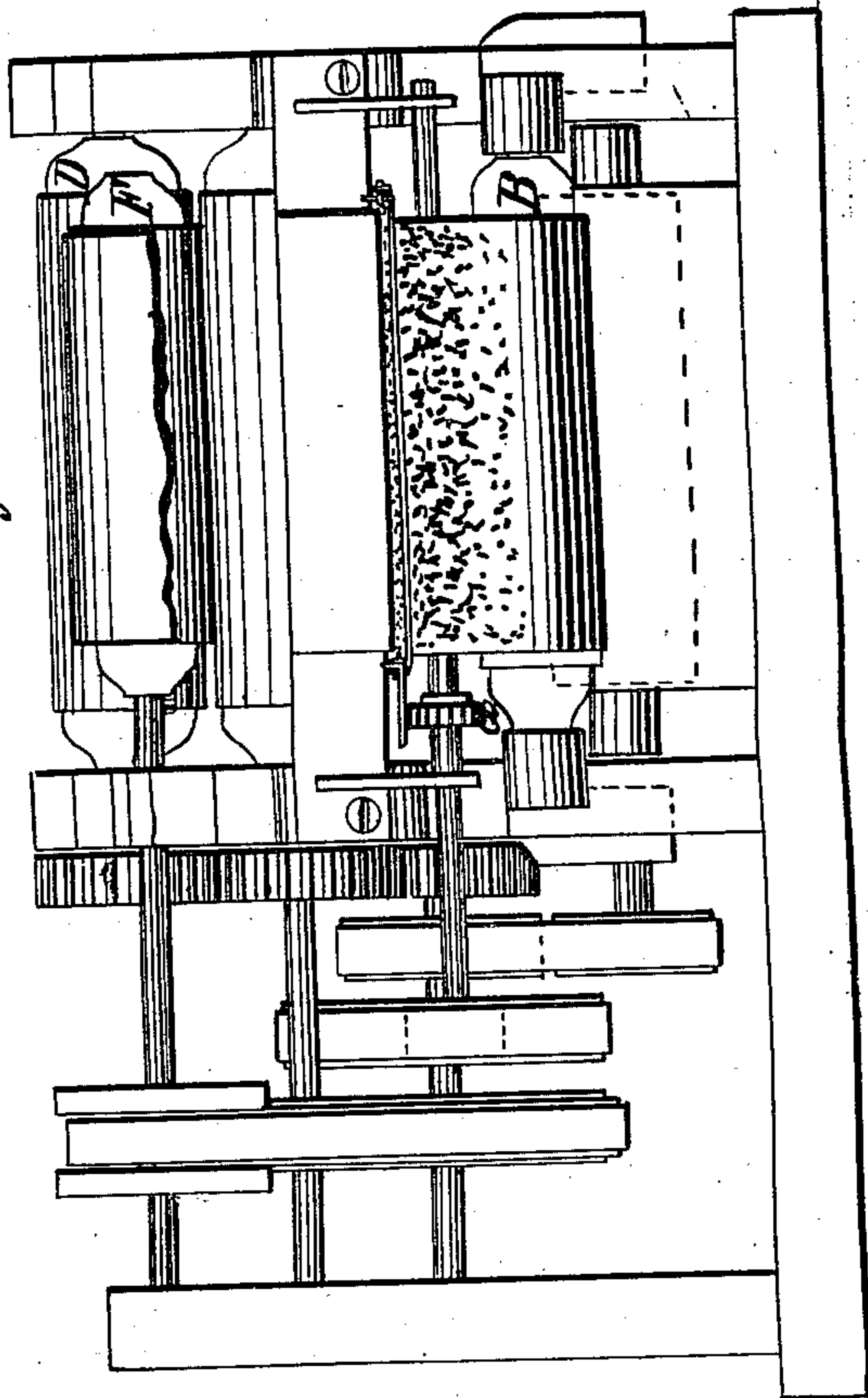


Fig: 2.



Witnesses:

J. C. Lathrop  
C. H. Kelly

Inventor:

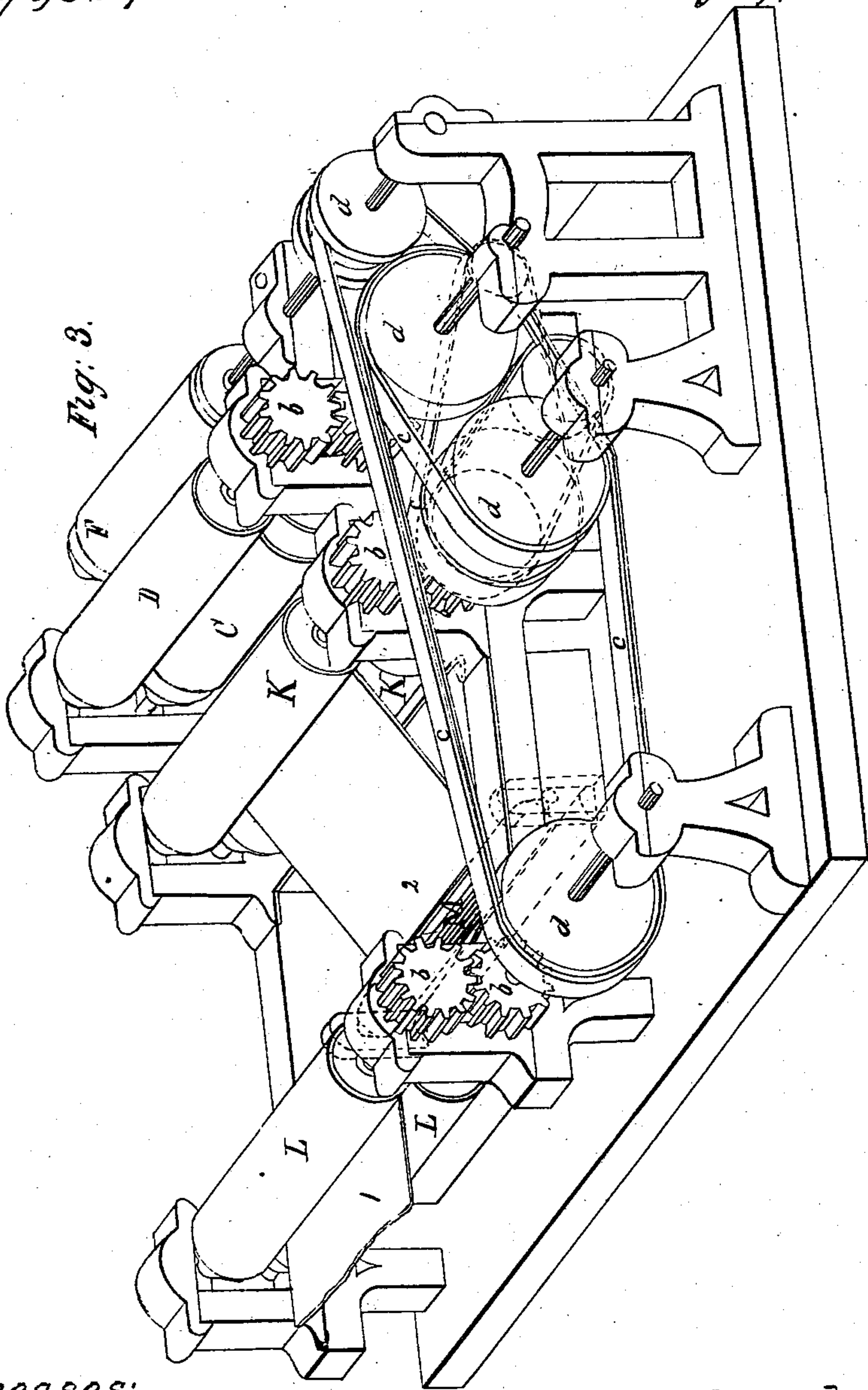
J. M. Cobb  
by his Atty, D. T. James.

J. M. Cobb. *Sheet 2, 2 Sheets*

*Roofing App'rs.*

*No. 93,859.*

*Patented Aug. 17, 1869.*



*Witnesses:*  
*J. C. Sathrop*  
*C. H. Kelley*

*Inventor:*  
*J. M. Cobb*  
*by his Atty. V. B. T. James*



# United States Patent Office.

JUDD M. COBB, OF BELOIT, WISCONSIN.

Letters Patent No. 93,859, dated August 17, 1869.

## IMPROVEMENT IN THE MANUFACTURE OF READY-PREPARED ROOFING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JUDD M. COBB, of the town of Beloit, and State of Wisconsin, have invented a new and useful Machine for the Manufacture of "Ready-Prepared Roofing;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, sheet 1, represents a full view, in section, of my invention, and

Figure 2, an end view, in front, of that part of the machine to the left of the vertical line *x x*, fig. 1.

Figure 3, sheet 2, is a perspective view of the same.

The nature of my invention consists in the construction and arrangement of machinery, in such a manner that the product thereof is a roofing-material for buildings, or a substitute for lathing, to be placed upon the walls and ceilings of buildings, so that by my arrangement and combinations of the different parts of the machine, roofing-paper or board can, by passing through the machine, become thoroughly impregnated with tar, and one of its surfaces covered or impregnated with asphaltum, gravel, or sand, and the material thus manufactured wound upon a cylinder or reel, so that when the proper and desired quantity is wound upon the same, it can be cut or severed from the sheet, removed from the reel or cylinder, and is ready for the market.

My invention is an improvement upon, or addition to the device or machine and process patented by H. F. Evans, of the town of Beloit, and State of Wisconsin, for the manufacture of tarred paper or board for roofing and other purposes, reissued the 27th day of July, 1869.

This machine of Evans is shown substantially in fig. 1, sheet 1, to the right of the vertical line *x x*, and the machine to the left of said line *x x* constitutes my invention, and the addition or improvement to and upon Evans' machine, and reference is hereby made to said patent and reissue of said Evans for a more particular description of his invention.

The paper to be operated upon is represented by the small figures 1 and 2. It passes through the rollers *L L* and beneath the roller *M*, which latter is contained in the tar-vat *Y*, fig. 1, then passing upward between the pressure-rollers *K K*, the paper becomes thoroughly saturated with the tar, or analogous material. At this point my machine and improvement begin.

I construct the roller *F* and place it in the frame of the machine so that the paper is passed beneath it, and carried over and in contact with the roller or cylinder *A*.

This last cylinder or roller is contained within the

box or vat *G*, containing asphaltum or other cement, sufficiently hot to be delivered by means of the roller upon the under side of the paper-board or material referred to. It is then, as it progresses, passed around the under side of the roller *B*, as shown in the drawings, and over the same, and carried or passed between the pressure-rollers *C D* to the cylinder or reel *F*, upon which the paper is wound, in such quantity and length as desired.

Above the roller *B* is located a gravel or sand-box, containing a hinged lid or bottom, that is operated by a cam, *a*, as shown in figs. 1 and 2; sheet 1, so that as the paper or material to be operated upon passes over the roller or cylinder *B*, the sand or gravel contained in the box *H* is distributed upon the same, and firmly compressed thereupon by means of the rollers *C* and *D*.

The sand or gravel is received upon the paper or roofing-material before the asphaltum or other cement is cold, so that it is retained there without difficulty.

The whole machine is operated by any ordinary motive-power, and the different rollers or cylinders controlled in their movements by means of the bands *c c c* and the wheels or drums *d d d*.

The advantages of this mode of preparing roofing-material are many and obvious. It can be more rapidly and economically prepared; the tarring of the paper material, gravelling, and sanding-operation can be done continuously by the combination of the two machines. There is no liability of the roof taking fire, as in the present mode of preparing the same. The gravel or sand is laid evenly upon the paper, and pressed upon it. There is little or no liability of the tar, asphaltum, or cement being affected by the sun, and running down upon the roof; and it does not require a person of more than ordinary skill to apply the product of my invention to roofing-purposes, or to the walls or ceilings of buildings.

Instead of the roller *A*, a steam-cylinder may be used that will revolve in the asphaltum-box or vat *G*, which box may contain radiating steam-pipes, in order to prepare the asphaltum and liquefy it to such a degree as to readily apply it to the surface of the paper, by the means aforesaid.

A compound of asphaltum and oil, tar, pitch, or other resinous or water-proof substance, may be used in the vat *G*, instead of asphaltum, without changing the material or substantial part of my invention.

The process of sanding or gravelling paper-board, felting, or paper that has not undergone saturation in the tar-vat, can be accomplished, and the sheet to be coated pass directly from the machine where it was made to the asphaltum-cylinder or roller.

This latter process, when completed, would subserve the purpose designed in the application of the product to the walls and ceilings of houses. When the layers



are laid upon the roof, they overlap each other sufficiently to make a good joint, and are firmly cemented together.

I hereby disclaim, as any part of my invention, the machine or devices described by the said Evans in his patent and reissue herein referred to, or analogous devices, for the purpose of preparing and manufacturing tarred roofing-paper; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The construction and arrangement of the machine, as herein described, by which cement and sand or gravel may be applied to a roofing-paper or material.

2. The combination and arrangement of the vat G, cylinders A B, pressure-rollers C D, and drum or roller F, with the sand or gravel-box H, in the manner and for the purpose herein described.

3. The combination of the sand or gravel-box H with the cam *a*, in the manner and for the purpose herein described.

4. As a new article of manufacture, "ready-made prepared roofing," when constructed in the manner and for the purpose herein described.

5. The combination of the machine for coating with cement and gravelling or sanding dry or tarred paper or board, with a machine for tarring paper-board or roofing-material, so that the tarring, coating, and gravelling or sanding-process can be done and effected by one continuous operation, as herein described.

JUDD M. COBB.

Witnesses:

R. H. WILLS,  
A. L. CHAPIN.