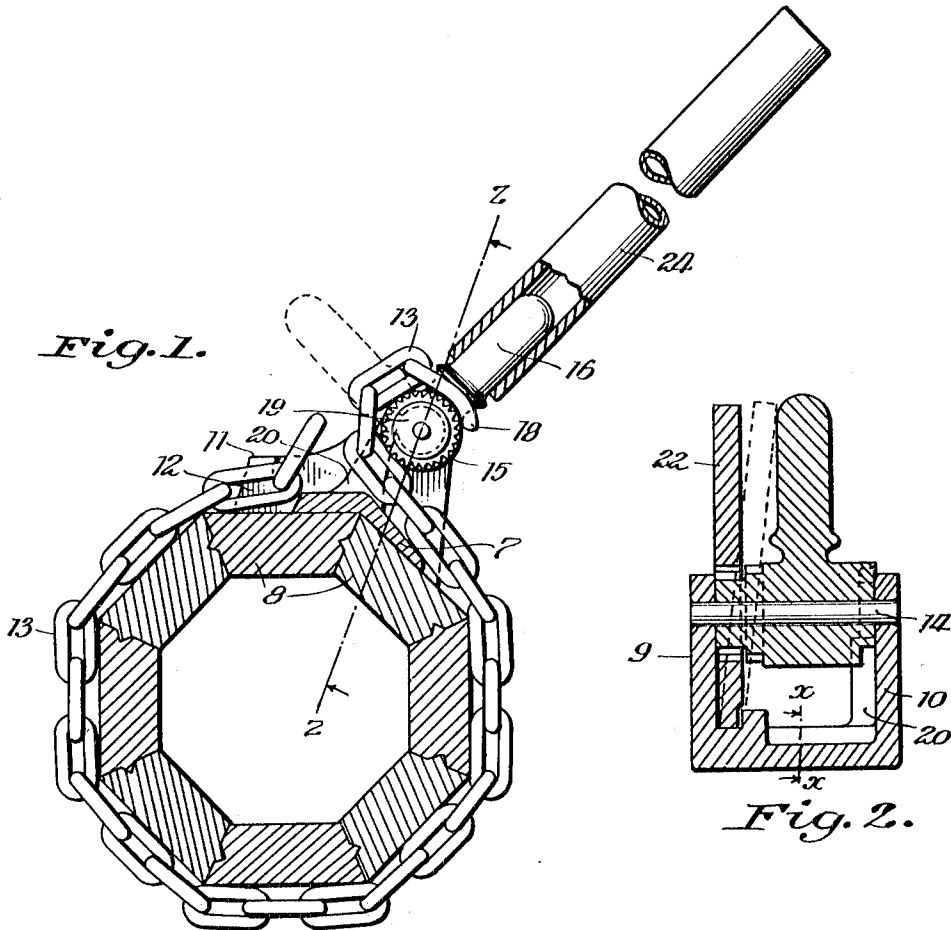
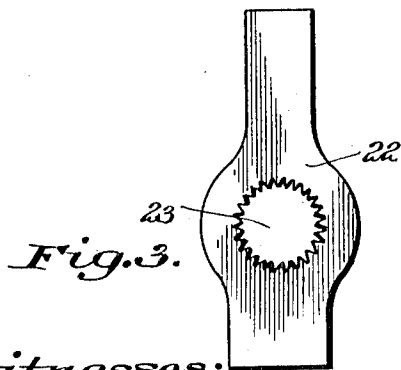
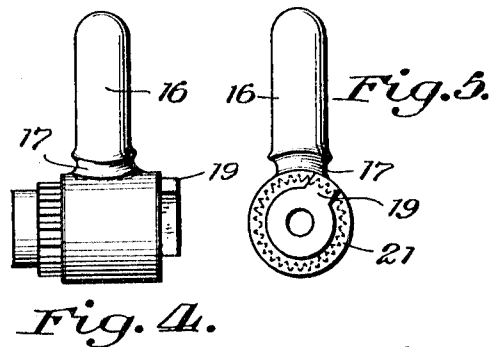


A. J. SCHULTE.
COLUMN CLAMP.
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UNITED STATES PATENT OFFICE.

AUGUST J. SCHULTE, OF TACOMA, WASHINGTON.

COLUMN-CLAMP.

1,119,783.

Specification of Letters Patent.

Patented Dec. 1, 1914.

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To all whom it may concern:

Be it known that I, AUGUST J. SCHULTE, citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented a certain new and useful Improvement in Column-Clamps, of which the following is a specification.

My invention relates to improvements in column clamps that are adapted to clamp or bind together the staves or segments of wooden columns to maintain such segments in their proper positions with relation to each other while they are being united by glue, and the object of my improvement is to provide column clamps that may be quickly adjusted in their respective positions to surround the segments of a column and to bind such segments together tightly by the application of but little of one's strength; a further object is to provide column clamps that are strong, durable, simple in construction and efficient in operation, and adapted each for use on columns of different sizes. I attain these objects by devices illustrated in the accompanying drawings, wherein—

Figure 1 is a fragmentary plan view of a column clamp embodying some of the principal parts of my invention, a portion of one of such parts being removed and its remaining portion being shown in section on broken line *x, x* of Fig. 2, while segments of a column are shown in cross-section, Fig. 2 is a sectional view of the same on broken line *z, z* of Fig. 1, but in which is shown a section of an additional part that is illustrated in Fig. 3, by a view in side elevation, Fig. 4 is a view in side elevation of a detail of my invention, and Fig. 5 is a view of the same in an end elevation wherein dotted lines indicate the form of a part of its other end portion.

Like reference numerals indicate like parts throughout the drawings.

Referring to the drawings, 7 is an angular base portion of a clamp frame which base portion is adapted to engage with each of the two adjoining segments 8, 8 of a column and is provided with upwardly extending side plates 9 and 10 and an upwardly extending end flange 11, which plates 9 and 10 together with the flange 11 are each formed integral with said base portion 7, and which flange 11 at a portion midway between side plates 9 and 10 is slotted ver-

tically to form a notch 12, such notch 12 extending for a short distance into the base portion 7 to adapt it to receive a link of a chain 13, as shown in Fig. 1, whereby such chain 13 may be attached securely by aid of the flange 11 to the left hand end of said clamp-frame.

Rotatably mounted on a shaft 14, which extends between the side plates 9 and 10, is a cylindrically formed arbor 15 projecting from side of which is an arm 16 around the base of which is a groove 17 within which may be disposed a hook or ring, as ring 18 of Fig. 1, which is attached to an end link of chain 13. Projecting radially from the smaller end portion of said arbor 15 is a lug 19 adapted to engage with a lug 20 that is disposed to project from the inner side of side plate 10 whereby the extent of a counter-clockwise rotary movement of arbor 15 may be limited as indicated in Fig. 1. Upon the larger end portion of said arbor is provided a toothed portion 21 having star shaped teeth, as shown in Fig. 4, and indicated by dotted lines in Fig. 5.

Fig. 3 illustrates a dog 22 having a hole 23 whose walls are provided with star shaped teeth corresponding with the star shaped teeth of the toothed portion 21 of the arbor 15, said hole 23 being of a diameter to permit the dog 22 to be disposed and fit upon the toothed portion 21 of said arbor 15.

As shown in Fig. 2, the dog 22 is disposed normally to rest vertically on its lower and larger end so that the hole 23 and the star shaped teeth therein may register with the toothed portion 21 of the arbor 15 whose larger end portion projects through hole 23 but in such vertical position that the teeth of the dog 22 may not engage with the teeth of the arbor 15. If, however, it be desired to prevent the arbor 15 from turning it is only necessary to press the upper end of the dog 22 toward the toothed portion 21 of the arbor 15 whereupon when the teeth of the dog 22 and the teeth of the arbor 15 properly register then said dog 22 will assume the position indicated by the dotted lines of Fig. 2, to interlock securely the teeth respectively of the dog 22 and the arbor 15.

As shown in Fig. 1, an extension handle 24, of any desired length may be telescopically joined to the arm 16 of the arbor 15

whereby a greater leverage may be exerted in the operation of turning the arbor 15 to act on the chain 13.

To operate a structure embodying my invention, as described and illustrated, the clamp-frame is disposed with its angular base portion 7 against the adjoining surfaces of two segments 8, 8 of a column and the ring 18 upon one end of a chain 13 is disposed in the groove 17 at the base of the arm 16 and said arm 16 is then turned to the point indicated by broken line in Fig. 1, in which position the lug 19 will engage with the lug 20; the chain 13 is then disposed to lead under the arbor 15 thence in a clockwise direction around the column and in close engagement with it, and one of its links is then inserted within the notch 12 so that an adjoining link may be caught and held by the flange 11 and thereupon the arm 16 may be turned in a clockwise direction to wind the chain 13 upon the arbor 15 to compress together with great force all of the segments of a column and when such compression is effected to a desired degree the dog 22 is pressed to lean toward the toothed portion of the arbor 15, as indicated by dotted lines in Fig. 2, to cause the teeth of the dog to interlock with the teeth of the arbor 15 whereby the chain 13 may be maintained in a position to exert a desired amount of compression upon the joined segments of a column for a desired length of time.

Manifestly the interlocking of the teeth of the dog 22 and the teeth of the arbor 15

acts most effectively to secure the arbor 15 in a fixed position.

Obviously different modifications in form and dimensions of the parts of my invention may be made without departing from the spirit thereof.

What I claim is:

1. A column clamp comprising a clamp frame, a chain winding arbor provided with circumferentially disposed teeth rotatably mounted in said frame, a radially projecting handle secured to said chain winding arbor, a dog formed of a metal bar having an opening therein, the wall of said opening being provided with notches adapted to register and interlock with the teeth of said arbor, said dog being disposed to be moved within said frame axially of the arbor with the arbor extending therethrough whereby at desired times said teeth of the arbor may be caused to interlock with said notches of said dog to secure the arbor in a desired position within said frame.

2. In a column clamp, a frame, a winding arbor mounted in the frame, teeth formed on a portion of the periphery of said arbor, and means mounted on the arbor and movable axially thereof adapted to engage the teeth to arrest movement of the arbor.

In witness whereof, I, have hereunto subscribed my name this 4th day of February A. D., 1913.

AUGUST J. SCHULTE.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."