

R. D. PIKE.
 APPARATUS FOR BUNDLING CARBONS.
 APPLICATION FILED APR. 1, 1916.

1,206,370.

Patented Nov. 28, 1916.
 2 SHEETS—SHEET 1.

FIG-1-

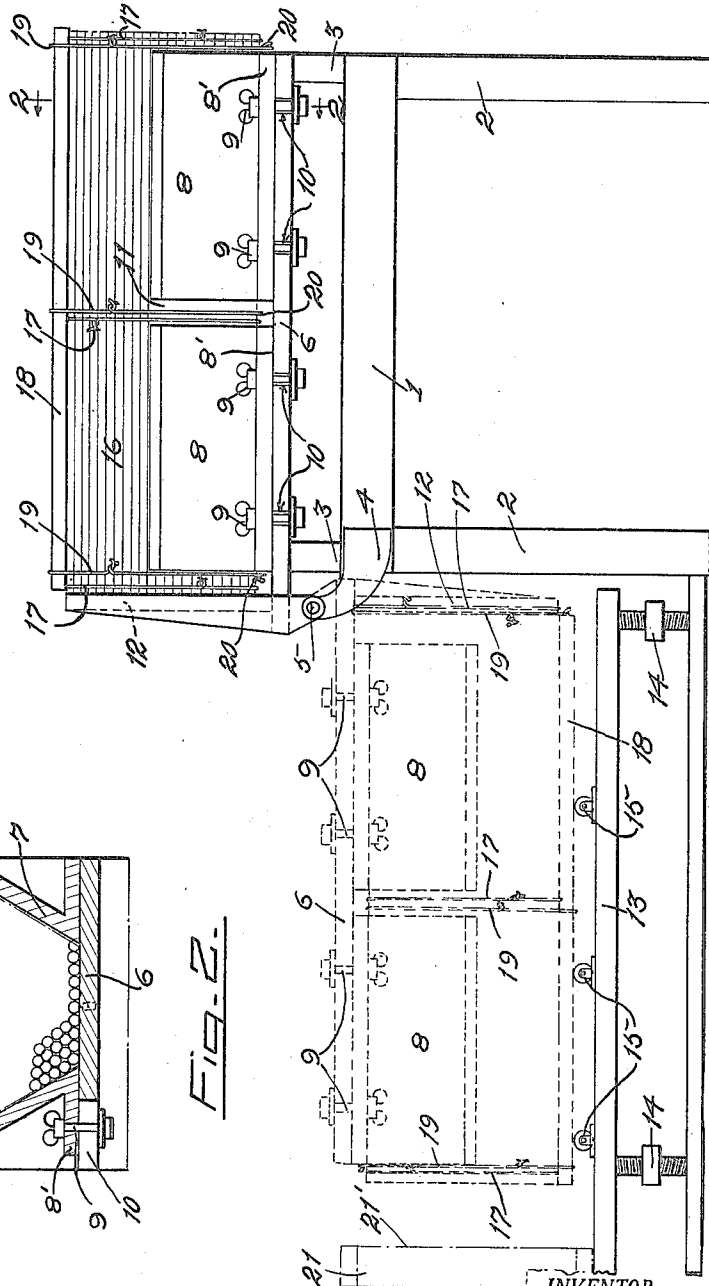
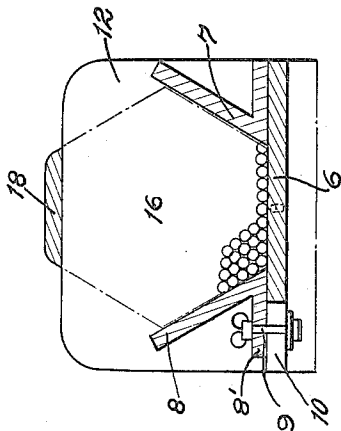


FIG-2-



WITNESS

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 2 SHEETS—SHEET 2.

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FIG-3-

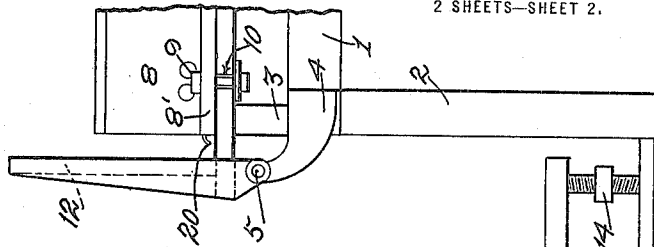
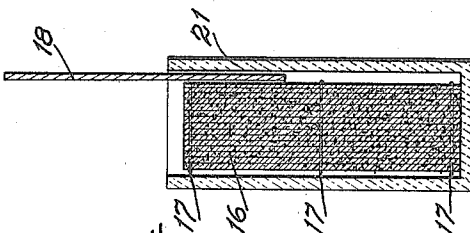
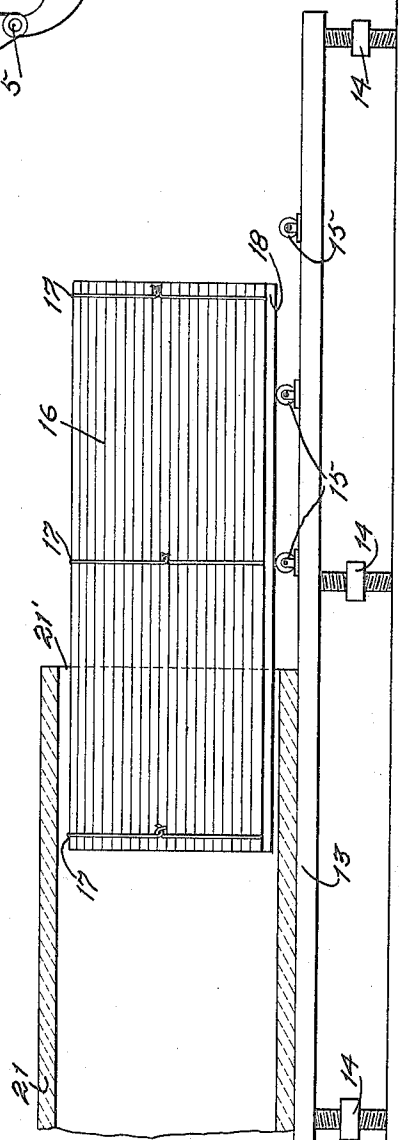


FIG-4-



WITNESS
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APPARATUS FOR BUNDLING CARBONS.

1,206,370.

Specification of Letters Patent.

Patented Nov. 28, 1916.

Application filed April 1, 1916. Serial No. 88,419.

To all whom it may concern:

Be it known that I, ROBERT D. PIKE, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Apparatus for Bundling Carbons, of which the following is a specification.

The present invention relates to an apparatus for preparing green electric arc carbons and other similar objects for firing, and more particularly for gathering said carbons together into bundles, and introducing said bundles into crucibles or saggars.

The handling of green carbons and similar objects requires great care, for the reason that said carbons are soft and flexible in this condition, and are therefore easily bent or otherwise distorted; and inasmuch as the quality of the finished product depends upon the accuracy and perfection of form of the carbons, careful handling of the unfired material is very necessary.

The object of the present invention, therefore, is to provide an apparatus by which green carbons or objects of like nature can be successfully and easily packed in a sagger preparatory to the firing process, without danger of injury to said carbons.

The invention will be more fully described hereinafter, with reference to the accompanying sheets of drawings, wherein is illustrated a preferred form of apparatus embodying the invention, and in which—

Figure 1 is a side elevation of the invertible form in which the bundle is laid. Fig. 2 is a transverse section of the same, taken in the direction of the arrows on the line 2—2 of Fig. 1. Fig. 3 is a side elevation showing the bundle entering the sagger, the latter being shown in section. Fig. 4 is a longitudinal section through the sagger with the bundle of carbons contained therein, the temporary supporting member being partially removed.

In the drawings, the reference numeral 1 designates a suitably constructed bed or table, supported upon posts or legs 2, and having superposed thereupon rests or blocks 3. Brackets 4, of which one is shown in the drawings, project from one end of the bed 1, and carry, by means of a pivotal connection indicated at 5, a structure having a base 6 adapted to rest normally upon the blocks 3.

A pair of alined fixed inclined side members 7 are mounted upon said base 6 at one

edge thereof, and at the other edge are a similar pair of alined adjustable inclined side members 8, secured to said base by bolts 9 passing through the horizontal lower portions 8' of said side members 8, and through transversely disposed slots 10 in the base 6. Thus it will be seen that said adjustable side members 8 may be moved toward or away from the fixed side members 7, and retained in any desired position by means of the bolts 9. A space 11 is preferably left between the adjacent members of said pairs. An end member 12 is fixed to the pivot end of the base 6, and projects upward perpendicularly therefrom.

At a lower level than that of the bed 1, and at one end thereof, is a horizontal transfer table 13, adjustably mounted upon elevating screws 14, and carrying transfer rollers 15 upon its upper surface.

The green carbon sticks are placed in the form comprising the base 6 and the inclined sides 7 and 8 with their ends against the end member 12, and stacked therein to form a bundle 16 of the desired size. In the apparatus illustrated, the sides 7 and 8 are set at 120 degrees to the base 6, such being the proper angle for a hexagonal bundle, but it is understood that bundles of other shapes may be made, by providing side members having the proper inclination. Moreover, by adjusting the position of the movable side members 8, the size of the bundle 16 may be varied.

When the bundle is built up, it is tied by means of lashings 17, said lashings being preferably placed in the form prior to the placing therein of the carbons. A temporary supporting member 18, formed preferably of a wooden plank corresponding in size to one side of the bundle 16, is then placed upon the uppermost side or top of said bundle. The whole assemblage is securely tied together, preferably by means of lashings 19 secured at 20 to the form, and passing over the temporary supporting member 18.

The form, with the bundle 16 secured therein, is then inverted to the position shown in dotted lines in Fig. 1, by being swung about its pivot 5, until the temporary supporting member 18 rests upon the rollers 15 of the transfer table 13, said table being adjusted to the proper height, by means of its elevating screws 14, to support the bundle in a horizontal position when in-

verted. During this inversion, the bundle is firmly supported by the base 1 and sides 7 and 8 of the form, the end 12 of said form, and the temporary supporting member 18 and lashings 19, so that no distortion of the carbons can occur.

When the temporary supporting member 18 rests upon the transfer rollers 15, the lashings 19 are removed, and the form returned to its original upper position. A saggar 21 is placed horizontally upon the outer end of the transfer table 13, in line with the bundle 16 and with its open end 21' adjacent to the end thereof. The temporary supporting member 18, with the bundle, held together by its lashings 17, resting thereon, is rolled into said saggar, as shown in Fig. 3 of the drawings. The saggar is then raised to a vertical position, and the temporary supporting member 18 withdrawn, as shown in Fig. 4. The saggar may then be packed in the usual manner by filling the spaces surrounding the carbons with carbon dust or other suitable material, and is ready to be placed in the kiln in any well known manner. It will be seen that by this method, the bundle of green carbons is at all times firmly supported, and is not subjected to any unnecessary handling, so that no distortion or mutilation of the carbons can ensue. Moreover, the labor involved in the operation is reduced to a minimum.

The invention has been herein described as particularly suited to the bundling of green carbons and the introduction of the bundle into a saggar. It is obvious, however, that it is also adapted to the handling of other materials of a like nature, and I therefore do not wish to be construed as restricting myself in this regard.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:—

1. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; and means for supporting the saggar in axial alinement with said bundle when the same is inverted.

2. An apparatus for preparing electric

arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; and a vertically adjustable transfer table for supporting said temporary supporting member with the bundle superposed thereon, in a substantially horizontal position, when the same are inverted, and for supporting the saggar in axial alinement with said bundle.

3. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; and a transfer table for supporting said temporary supporting member with the bundle superposed thereon, when the same are inverted, and for supporting the saggar in axial alinement with said bundle.

4. An apparatus for preparing electric arc carbons and the like for firing, comprising in combination with a saggar, an invertible form adapted to receive a bundle of carbons; a temporary supporting member adapted to be superposed upon said bundle and to support the same when said form is inverted; means for retaining said form, said bundle, and said temporary supporting member in their relative positions during the inversion thereof; a transfer table for supporting the saggar in a substantially horizontal position; and transfer rollers carried by said table for supporting said temporary supporting member with the bundle superposed thereon, when the same are inverted, in axial alinement with said saggar.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT D. PIKE.

Witnesses:

HARRY A. POTTER,
D. B. RICHARDS.