J. LALLY.

COLUMN.

APPLICATION FILED JUNE 8, 1914.

1,185,207.

Patented May 30, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

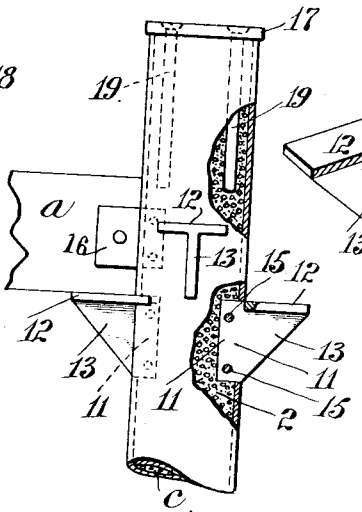


Fig. 4.

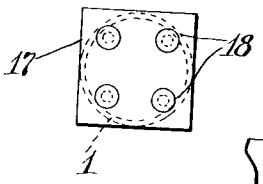


Fig. 5.

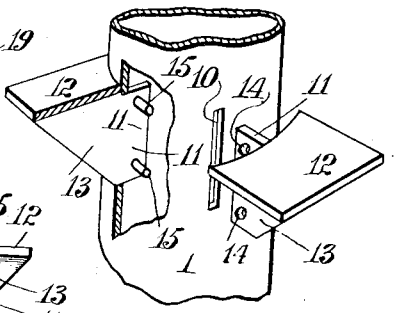


Fig. 2.

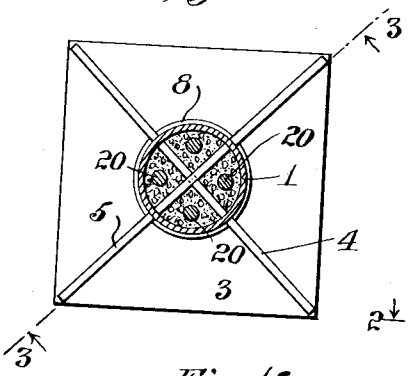


Fig. 3.

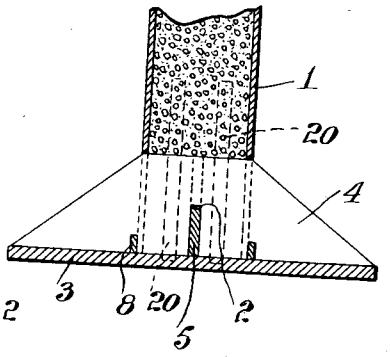
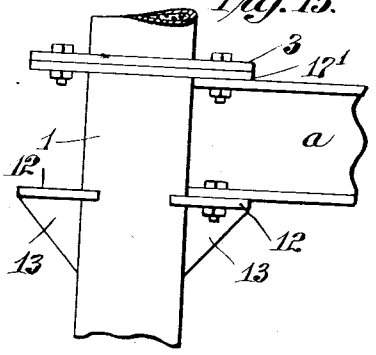
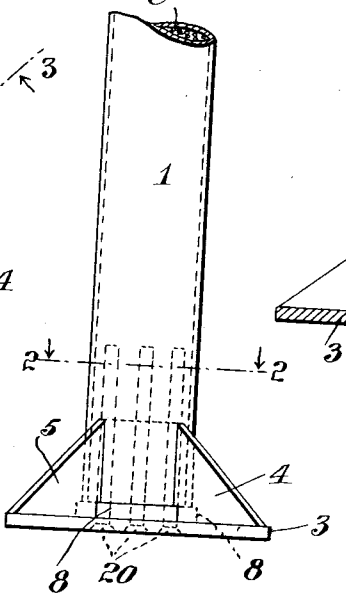


Fig. 15.





Attest:

J. M. Mitchell

Irving Katz

by

John Lally

Inventor:

Robt B Killgore

Atty

J. LALLY.

COLUMN.

APPLICATION FILED JUNE 8, 1914.

1,185,207.

Patented May 30, 1916.

2 SHEETS—SHEET 2.

Fig. 6.

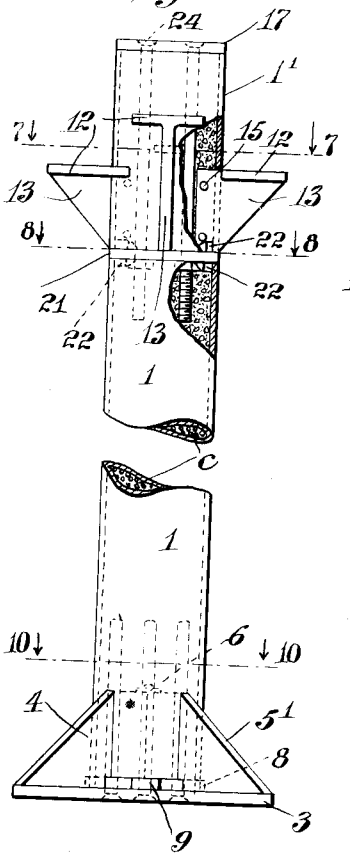


Fig. 8.

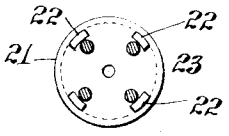


Fig. 7.

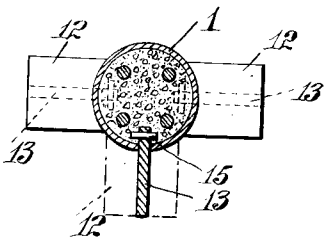


Fig. 9.

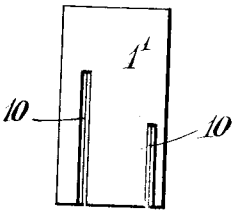


Fig. 14.

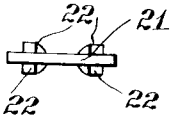


Fig. 11.

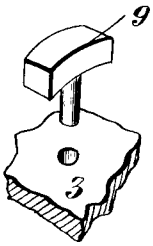


Fig. 12.

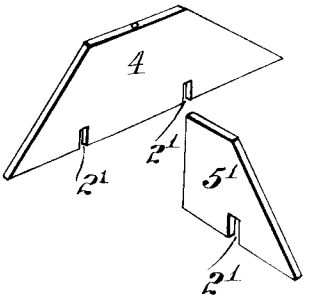


Fig. 10.

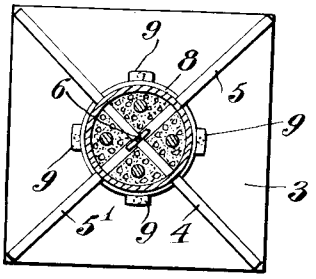
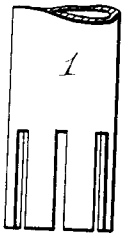


Fig. 13.



Attest:

S. D. Mitchell

Irving Katz

John Lally
Inventor:

by

Robert B. Killgore
Atty

UNITED STATES PATENT OFFICE.

JOHN LALLY, OF BOSTON, MASSACHUSETTS.

COLUMN.

1,185,207. Specification of Letters Patent. Patented May 30, 1916.

Application filed June 8, 1914. Serial No. 843,732.

To all whom it may concern:

Be it known that I, JOHN LALLY, a citizen of the United States, residing at Boston, Suffolk county, Massachusetts, have invented a new and useful Improvement in Columns, of which the following is a specification.

My invention relates to reinforced columns for use in building construction and my objects are the production of a cheap, strong column which can be made up from stock parts to suit various requirements for height, location of beam bearing brackets, etc., and which will meet the requirements of the various building departments.

In the drawings Figure 1 is a view of a complete column; Fig. 2 a top view of the foot or base; Fig. 3 a side view of the foot or base; Fig. 4 a view of the cap plate; Fig. 5 a detail view of the beam brackets; Fig. 6 a view of a modification in which the top part is separate from the body; Fig. 7 a top view of the separate cap construction; partly in section; Fig. 8 a view of the bracket base plate used in the modified form; Fig. 9 a view of the cap pipe used in making the separate cap slotted to receive the brackets; Fig. 10 a view of a modified base; Fig. 11 a detail view of a base brace; Fig. 12 a detail view of the base brackets; Fig. 13 a view of the column bottom; Fig. 14 a side view of the bracket base plate of Fig. 8; and Fig. 15 a view of superimposed columns.

The column is essentially a pipe 1 with a concrete filling *c*. The base as shown in all the figures is a plate 3 with stiffening brackets 4—5 with intersecting notches 2 as shown Figs. 1, 2 and 3, or three pieces 4, 5 and 5′ tied together at 6 as shown in Figs. 6, 10 and 12. The base of the pipe 1 is slotted at 7, 7 to fit over the base brackets as shown in Figs. 1, 3 and 13 and may be prevented from spreading by a ring 8, further assisted by lugs 9 on the base plate 3. The lower edges of the brackets 4, 5 or 5′ are slotted at 2′ to receive the ring.

The beam carrying top or cap is formed by slotting the pipe 1 at 10 and inserting the edge 11 of the bracket provided with the face plate 12 on which the beam *a* rests, and brace 13 to support the load. One method of securing the bracket in place is to provide it with apertures 14 through which pins 15 are inserted to prevent withdrawal of the brackets. The beam *a* may be further secured by a plate 16 fastened within the pipe by pins as are the brackets. A top plate 17 provided with holes 18, 18, through which the tie rods 19 extend complete the cap portion. Like tie rods 20 secure the base in place.

If desired the cap portion carrying the beam brackets may be made separate from the body of the column as shown in Figs. 6, 7, 8 and 9. In this case a short section of pipe 1′ is slotted at the lower edge as shown in Fig. 9 to receive the usual brackets. A bottom plate 21, provided with lugs 22 and holes 23 is placed on the bottom and a plate 17 on the top. Long bolts 24 extend throughout the structure and hold the whole together. In this form the bottom of the brackets rest directly on the bottom plate and are supported thereby. The bolts 24 are very long and extend into the main column to join the head and body. The lugs 22 bear against the inner walls of the head pipe and the inner walls of the body pipe to prevent lateral displacement.

In Fig. 15 I have shown how columns may be superimposed by bolting together the squared corners of the top plate 17′ of one column and the base plate 3 of the superimposed column. The top plate 17′ may be made large as shown in Fig. 15 to engage the top of a beam *a* to hold it in place.

It is of course understood that after the columns have been assembled, minus the top plate or cap, concrete is poured in and the top plate or cap as the case may be with its tie bolts are forced into position so that when the concrete hardens a solid, unitary column is produced which can be transported as a whole to the building ready for erection.

The materials used are ordinary pipe for the body and cap, plate stock for the bottom, top and braces and T-iron for the brackets so that practically no castings or patterns are required thus greatly cheapening the cost of production. By properly locating the slots for the beam carrying brackets any desired combination of number, height and angle may be secured.

I claim:—

1. A column comprising a base composed of a plate and braces thereon at right angles thereto provided with notched lower edges; a casing provided with slots to receive the

braces and supported by the base; a ring surrounding the casing and engaging the notches in the braces.

2. A built-up column comprising a hollow casing slotted adjacent to one end, a bracket of T-section extending through a slot, pins extending through the bracket within the casing and a filling of plastic material within the casing.

3. A built-up column comprising a hollow casing slotted adjacent to one end, a bracket of T-section extending through a slot, a beam tie plate also extending through a slot, pins extending through the bracket and through the plate within the casing and a filling of plastic material within the casing.

4. A built-up column comprising a hollow casing slotted adjacent to one end, a bracket of T-section extending through a slot, pins extending through the bracket within the casing, a top plate closing the casing, pins extending through the top plate within the casing and a filling of plastic material within the casing.

5. A built-up column comprising a hollow casing slotted adjacent to one end, a plate thereon closing the opening and larger than the casing, pins extending through the plate into the casing, brackets extending through the slots into the casing and contacting at one edge with the plate and a filling of plastic material within the casing.

6. A built-up column comprising a hollow casing slotted adjacent to one end, a plate thereon closing the opening and larger than the casing, pins extending through the plate into the casing, brackets extending through the slots into the casing and contacting at one edge with the plate, a support on the plate against the casing to prevent spreading and a filling of plastic material within the casing.

In testimony whereof I have hereunto subscribed my name in the presence of two attesting witnesses.

JOHN LALLY.

Witnesses:
FRANK W. HOLMES,
ROY M. LAUSON.