Better Book Crate

Name, Degree graduation year, email, phone

Shelves built from crates have the huge advantage that they can be disassembled, moved, stored and assembled, leaving the contents (books, CDs, DVDs, …) in the crates. This makes moving much easier and cheaper than de-shelving books, placing them in separate boxes, disassembling the shelves, moving everything, building shelves and shelving books.

However, none of the existing crates allows building a sturdy shelf. They start to cave in or lean once the third layer is stacked on top. Many crates can also not be carried easily once filled. Some crates are too large making them too heavy when filled. Many crates do not protect contents from dust or dirt, which is important for storing crates.

Here is a list of needs:

Must Have
- **Sturdy** enough, possibly with some kind of locking mechanism, to allow building of large shelves (at least 5 levels high)
- **Comfortable handles** to allow carrying of individual crates filled with heavy contents (books, CDs)
- **Stackable for transportation** and storage

Nice to Have
- Protects as much as possible contents from dirt and dust
- Allows disassembling of individual crates for easy shipping and storage of empty crates
- Allows moderate flexibility in shelf sizes and spacing to provide efficient stirage for books, CDs, DVDs,…
- Different colors to allow matching to existing furniture or wallpaper

The market for such a universal crate is huge, since every household in the US has typically several shelves. There are about 150 million households in the US. The core market segment is people who move frequently, for example students or singles. Also startup companies that frequently have to move to larger and larger offices might be a particularly profitable customer segment.

Simple wooden crates (apple crates) cost $15-$20. Crates made out of plastic can be had from $3-$15. As I mentioned above, all these crates suffer severe design flaws. A better crate could command a price of $30-$50.

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