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21M.735 Tech Note 8: Traditional Effect

Simulating a Storm Blowing Open a Door

On a stage portraying the interior of a dwelling set during a heavy storm, be it snow or rain, a powerful effect could be the storm blowing open the door. In an effort to make it as impressive as possible, it should be made to be as lifelike as possible. This tech note will discuss some possible ways of making that happen.

First, the most important aspect of the effect will be after the door opens: the blowing of precipitate into the room. This has two main components: the wind and the precipitate. For the wind, a fairly heavy-duty fan should be sufficient, and many air-circulating room fans will fit the bill. Ideally, the fan should produce a tight stream of air, so it can be directed through the door, rather than just into the back of the flat around the door. For both forms of precipitate, it is important to have a high volume at that particular instant, so traditional methods should be adapted slightly to make sure they can dump the precipitate quickly enough. For snow effects, this might be as easy as dumping a wad of fake snow in front of the fan just as the door is opened. For rain effects, the rain should originate as droplets, rather than dumping a bucket in front of the fan, so that the fan will be able to better direct it. A potentially successful method could be to get the usual spray nozzle on a hose, and spray the water into the air stream. It would be good to experiment from different angles of spray to see what works best.

The second key factor will be the sound of the wind from the blowing storm outside, which could be both before and after the door has opened, as it befits the scene. This could be done easily enough with a canned sound effect by the sound technicians, or an old-school wind machine could be used.



This would have the additional advantage of being able to be positioned right outside the door in question, so it would have directional correctness, even tempered by the door status appropriately (i.e., when the door is closed, the wind appreciably drops in sound intensity).

The final component is the door opening itself. It's likely that the fan volume will not itself be sufficient to actually open the door with the required dramatic force. Thus, a

little stage magic might be necessary to help the effect along. In this particular case, a torsion spring attached to the door could work wonders, especially if the door is constructed to be sufficiently light that it accelerates quickly. Coupled with a remotely activated trigger to release the door catch at the right moment, the door could be thrown open with an appropriate bang quite impressively. An additional benefit of the spring mechanism is that it will require the actors to exert some force, magnitude determined by the design, in closing the door after it comes open, as it would if they were actually fighting the wind to get it closed. The drawback to this arrangement is that every time someone might go to open the door, as soon as they release the latch, it would slam open. This could be rectified by constructing the spring in such a way as to only compress it right before the effect was to take place, say by leaving the one end free most of the time, but compressing it and slipping it into a catch when the scene was ripe.

Hopefully, when taken together, these components will create a believable and startling effect of a door being blown open allowing the "storm" to come inside.