Name: High Heat and Corn Starch

Context: Many people cook steaks, both in professional kitchens and at home. There are hundreds of different ways to cook a steak (sous vide, grill, smoke, butter baste, etc.), but not all of them produce a crispy crust that many people desire. A common way to produce a crust is to salt your steaks at least 30 minutes before cooking it, and then cooking it right away in a pan. This pattern looks to improve that method, but the cooking method will stay the same. For this pattern, we will assume the steak is cooked in a pan in a home kitchen.

Problem: Moisture and incorrect temperatures make hard to achieve a cripy crust on your steak, while also achieving the doneness level you desire. The moisture that causes problems usually comes from inside the steak. This moisture is present on the surface of the steak the second that you open its packaging. This moisture also comes in the form of juices coming from deeper inside the steak, both before and after you cook it. These juices can prevent a good crust from forming while cooking if it is present your steak while cooking. These juices can also ruin the crust that you do form as you let the steak rest after cooking. The juices will seep out of the cooked steak, softening any crust that you formed while cooking.

Forces: There are three main forces at play when considering a steak and its crust. They are moisture, heat, and time. The moisture (as explained above) comes from multiple places, and can soften your steak crust. Heat creates the crust, but if you aren't using a high enough heat, then you aren't forming a good crust. Time plays a large factor. The longer you let the steak cook in high heat the better the crust, but if you let too much time pass, you could overcook your steak, or burn your crust. If you are letting your steak salt for too short a time, the salt is not absorbing enough moisture from the steak, and that moisture will present itself to be problematic to your steak crust later. An issue though is that not everyone can, or wants to, salt a steak and wait 2-8 hours (maybe even overnight) for the salt to do its job.

Solution: Rather than salt your steak to absorb the moisture, cover your steak in corn starch. First, remove your steak from it's packaging and pay it dry. Then, apply a thin layer of corn starch to each surface of the steak (top, bottom, and all sides). Once the steak has a thin layer of corn starch covering its entire surface, let it sit for 30 minutes. With this pattern, there is no need to let your steak sit for hours and hours. The corn starch will absorb more moisture from the steak at a faster rate than salt will. In the last 10 minutes of waiting, let your pan heat up to a medium heat. After waiting 30 minutes, pay the steak dry one last time. Do not worry about getting the corn starch off the steak. It will come off in the pan. Add a little olive oil to your pan, season your steak with salt and pepper (or any other seasing you want to use) and place the steak in. Flip once ever 1-2 minutes until you reach an internal temp ~20 degrees lower than your desired doneness level. Remove steak from pan. Turn heat up to high. You want the pan to be as hot as possible (this may take 10-15 minutes). Add a little more olive oil to the pan, and it should

be smoking. Once the oil is smoking, add the steak back into the pan, flipping every 60 seconds to ensure an even cook and crust on both sides. Once the steak is about 10 degrees below the doneness level that you desire, remove from heat and let the steak rest for 10-15 minutes. This will allow the juices to absorb into the interior of the meat, and the internal temperature will rise to your desired doneness level. After all of this, because you prepared the steak with the corn starch and seared it on high heat as the final step, you should have a great crust on both sides of your steak.

Resulting Context: You can now consistently get a good crust on your steak, but there are more problems to be solved. Achieving a good crust with butter basting is another issue that needs a good pattern. This pattern also does not take into consideration other cooking methods like sous-vide, although many principles may still apply.

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