In [4]:
```
import pandas as pd
```

In [ ]:
```

```

In [11]:
```
def get_country_data(data, columnName, countryName):
    us_data = data.loc[data['Country/Region'] == countryName]
    us_time_series_only = us_data.drop(["Province/State", "Country/Re
gion", "Lat", "Long"], axis=1)
    transposed = us_time_series_only.transpose()
    transposed = transposed.rename(columns={transposed.columns[0]: co
lumnName})
    return transposed
```

In [12]:
```
def get_data():
    confirmed_df = pd.read_csv(
        'https://raw.githubusercontent.com/CSSEGISandData/COVID-19/ma
ster/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19
_confirmed_global.csv')
    recovered_df = pd.read_csv(
        'https://raw.githubusercontent.com/CSSEGISandData/COVID-19/ma
ster/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19
_recovered_global.csv')
    death_df = pd.read_csv(
        'https://raw.githubusercontent.com/CSSEGISandData/COVID-19/ma
ster/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19
_deaths_global.csv')

    us_confirmed = get_us_data(confirmed_df, "Confirmed")
    us_recovered = get_us_data(recovered_df, "Recovered")
    us_death = get_us_data(death_df, "Death")
    us_all = us_confirmed
    us_all["Recovered"] = us_recovered.Recovered
    us_all["Death"] = us_death.Death
    us_all['Day'] = range(len(us_all))

    return us_all
```

In [13]:
```
us_all = get_data()
us_all
```

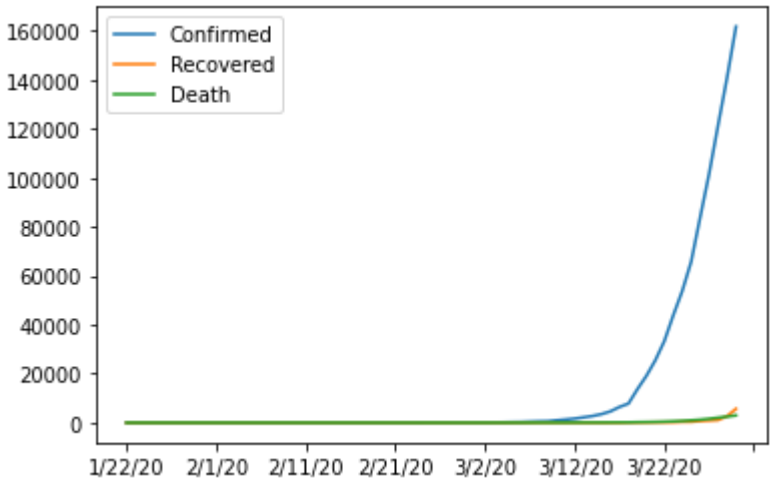
Out[13]:

	Confirmed	Recovered	Death	Day
1/22/20	1	0	0	0
1/23/20	1	0	0	1
1/24/20	2	0	0	2
1/25/20	2	0	0	3
1/26/20	5	0	0	4
...	...	...	...	...
3/26/20	83836	681	1209	64
3/27/20	101657	869	1581	65
3/28/20	121478	1072	2026	66
3/29/20	140886	2665	2467	67
3/30/20	161807	5644	2978	68

69 rows × 4 columns

In [14]:
```
us_all.drop(["Day"], axis=1).plot()
```

Out[14]: <matplotlib.axes._subplots.AxesSubplot at 0x7f14a5a7e470>



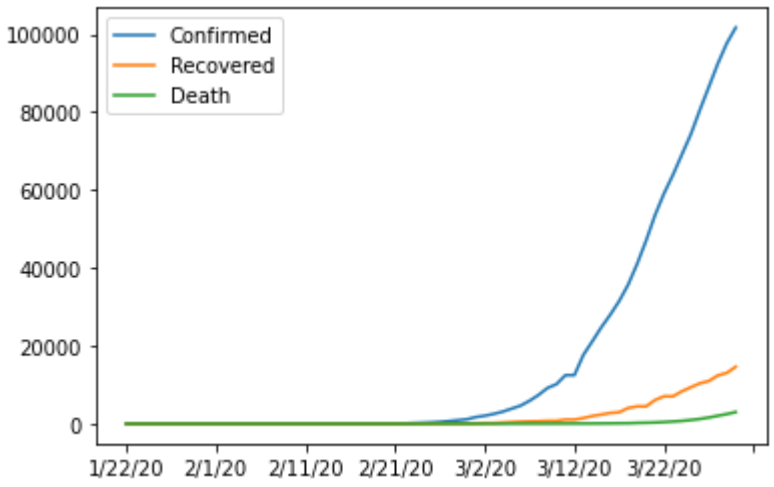
In [15]:
```
def get_italy_data():
    confirmed_df = pd.read_csv(
        'https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_global.csv')
    recovered_df = pd.read_csv(
        'https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_recovered_global.csv')
    death_df = pd.read_csv(
        'https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_deaths_global.csv')

    italy_confirmed = get_country_data(confirmed_df, "Confirmed", "Italy")
    italy_recovered = get_country_data(recovered_df, "Recovered", "Italy")
    italy_death = get_country_data(death_df, "Death", "US")
    italy_all = italy_confirmed
    italy_all["Recovered"] = italy_recovered.Recovered
    italy_all["Death"] = italy_death.Death
    return italy_all
```

In [16]:
```
italy_all = get_italy_data()
```

In [17]:
```
italy_all.plot()
```

Out[17]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x7f14a5a6d6d8>
```



In [22]:
```
combined = pd.DataFrame({
    'USConfirmed': us_all.Confirmed,
    'USDeath': us_all.Death,
    'USRecovered': us_all.Recovered,
    'ItalyConfirmed': italy_all.Confirmed,
    'ItalyDeath': italy_all.Confirmed,
    'ItalyRecovered': italy_all.Recovered,
})
```

In [23]:
```
combined
```

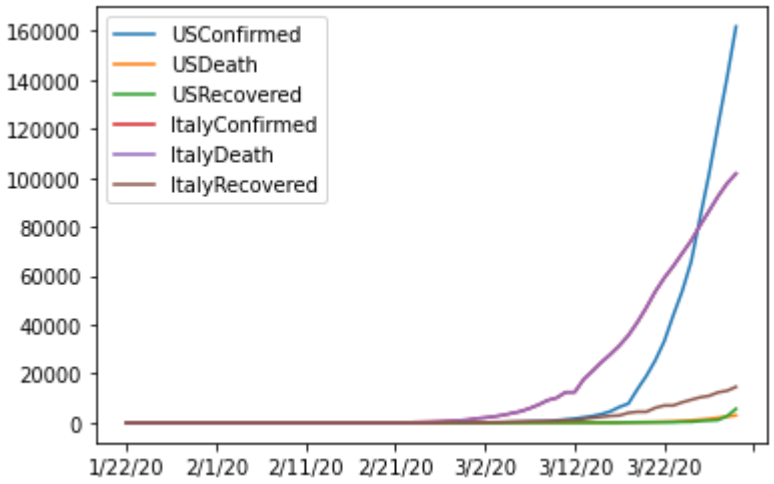
Out[23]:

	USConfirmed	USDeath	USRecovered	ItalyConfirmed	ItalyDeath	ItalyRecovered
1/22/20	1	0	0	0	0	0
1/23/20	1	0	0	0	0	0
1/24/20	2	0	0	0	0	0
1/25/20	2	0	0	0	0	0
1/26/20	5	0	0	0	0	0
...	...	...	...	...	...	...
3/26/20	83836	1209	681	80589	80589	10361
3/27/20	101657	1581	869	86498	86498	10950
3/28/20	121478	2026	1072	92472	92472	12384
3/29/20	140886	2467	2665	97689	97689	13030
3/30/20	161807	2978	5644	101739	101739	14620

69 rows × 6 columns

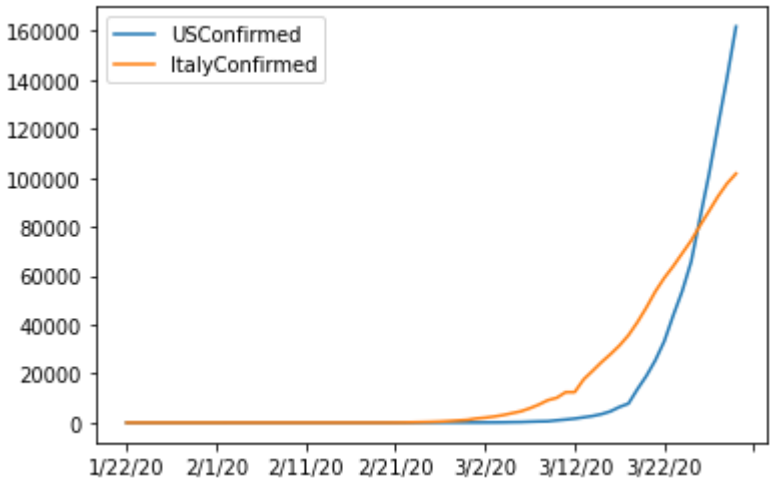
In [24]:
```
combined.plot()
```

Out[24]: <matplotlib.axes._subplots.AxesSubplot at 0x7f14a4ac6c50>



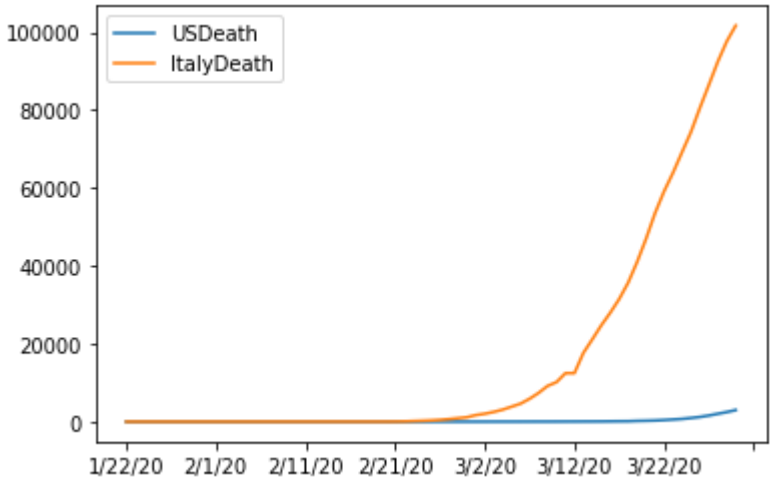
In [26]:
```
pd.DataFrame({
    'USConfirmed': us_all.Confirmed,
    'ItalyConfirmed': italy_all.Confirmed
}).plot()
```

Out[26]: <matplotlib.axes._subplots.AxesSubplot at 0x7f14a4f665f8>



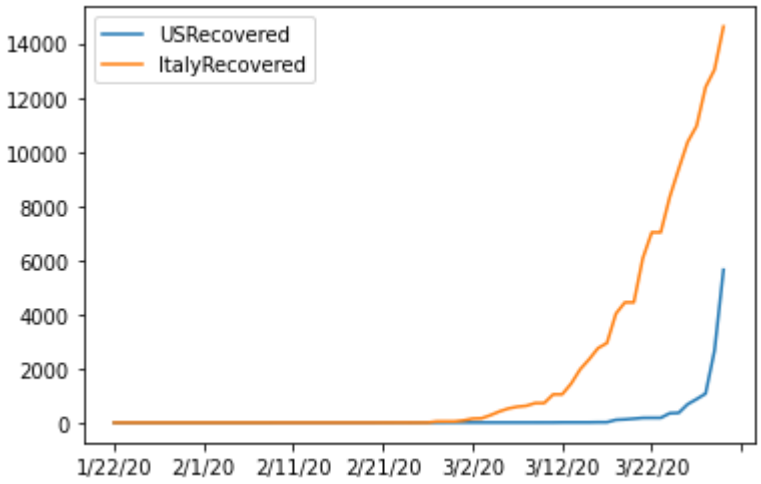
In [27]:
```
pd.DataFrame({
    'USDeath': us_all.Death,
    'ItalyDeath': italy_all.Confirmed
}).plot()
```

Out[27]: <matplotlib.axes._subplots.AxesSubplot at 0x7f14a57d8c50>



In [28]:
```
pd.DataFrame({
    'USRecovered': us_all.Recovered,
    'ItalyRecovered': italy_all.Recovered
}).plot()
```

Out[28]: <matplotlib.axes._subplots.AxesSubplot at 0x7f14a4f30470>



In [ ]: